DEFENSE PRODUCTION ACT

PROGRESS REPORT—NO. 31

HEARING

BEFORE THE

JOINT COMMITTEE ON DEFENSE PRODUCTION
CONGRESS OF THE UNITED STATES

EIGHTY-FOURTH CONGRESS

FIRST SESSION

TO HEAR

WITNESSES ON THE ACTIVITIES OF THE INTERIOR DEPARTMENT UNDER THE DEFENSE PRODUCTION ACT

JUNE 9, 1955

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DEFENSE PRODUCTION ACT

(Progress Report No. 31)

THURSDAY, JUNE 9, 1955

JOINT COMMITTEE ON DEFENSE PRODUCTION,
CAPITOL BUILDING,
Washington, D. C.

The committee met at 2 p. m., Hon. Paul Brown (chairman) presiding.

Present: Representative Brown, Senators Sparkman and Capehart, and Representatives Rains and Talle.

The CHAIRMAN. The committee will come to order.

Under Section 712 (b) of the Defense Production Act, it is the duty of the Joint Committee on Defense Production to make a continuous study of programs authorized by the Defense Production Act and to review the progress achieved in the execution and administration of these programs.

A number of responsibilities for the development of preparedness measures have been delegated to the Secretary of the Interior by the Director of the Office of Defense Mobilization, including metals and minerals, exploration, electric power, solid fuels, petroleum and gas—including pipelines—and fisheries products.

It is the purpose of this meeting to review the progress achieved to date in the development of preparedness measures under the Defense Production Act, and to discuss any current problems which may confront us.

I have been advised by the Acting Secretary of Interior that Secretary McKay, Assistant Secretary Wormser, and Assistant Secretary Aandahl, are away from Washington at this time.

We are glad to have the following representatives from the Department of the Interior with us today:

We have Mr. Liebert, who is Special Assistant to the Assistant Secretary—Mineral Resources, and Mr. Edward D. Frye, who is Special Assistant to the Assistant Secretary—Water and Power Development.

Mr. Liebert has accompanying him Mr. Hugh A. Stewart, Director, Office of Oil and Gas; Mr. Spencer S. Shannon, Director, Office of Minerals Mobilization; Mr. William F. Hahman, Solid Fuels, Office of Minerals Mobilization; Mr. C. O. Mittendorf, Administrator, Defense Minerals Exploration Administration; and Mr. Edward A. Power, Branch of Commercial Fisheries, Fish and Wildlife Service.

Mr. Frye is accompanied by Mr. George H. English, staff of Assistant Secretary—Water and Power Development, Mr. Gardner C. George, staff of Assistant Secretary—Water and Power Develop-

ment, and Mr. Arthur B. Vieregg, power adviser, Technical Review Staff, Office of the Secretary.

I believe we will call on Mr. Liebert first.

I believe you have a written statement?

Mr. LIEBERT. Yes, sir.

The CHAIRMAN. Will you proceed with your statement?

STATEMENT OF JOHN G. LIEBERT, SPECIAL ASSISTANT TO THE ASSISTANT SECRETARY—MINERAL RESOURCES, ACCOMPANIED BY HUGH A. STEWART, DIRECTOR, OFFICE OF OIL AND GAS; SPENCER S. SHANNON, DIRECTOR, OFFICE OF MINERALS MOBILIZATION; WILLIAM F. HAHMAN, SOLID FUELS, OFFICE OF MINERALS MOBILIZATION; C. O. MITTENDORF, ADMINISTRATOR, DEFENSE MINERALS EXPLORATION ADMINISTRATION, AND EDWARD A. POWER, BRANCH OF COMMERCIAL FISHERIES, FISH AND WILDLIFE SERVICE, INTERIOR DEPARTMENT

Mr. LIEBERT. Mr. Chairman and gentlemen of the committee, we are very pleased to have this opportunity to present to you a summary of the status and progress of the defense mobilization programs being carried on by the Department of the Interior.

In preparing for this hearing, we have tried to develop the presentations in a manner best designed to conserve the time of the committee and yet to encompass all key points concerning the functions, programs, progress, and problems in each of our areas of responsibility.

If agreeable to you, Mr. Chairman, we would like to read two relatively brief prepared statements. The first, which I will present, will outline the range of responsibilities delegated to the Secretary of the Interior under the Defense Production Act and related legislation, identify those activities common to all of Interior's areas of responsibility, set forth the distribution of functions within the Department, and then cover the specific programs in all fields other than electric power.

The second statement, to be presented by Mr. Edward D. Frye, Special Assistant to the Assistant Secretary—Water and Power Development, will summarize activities and progress with respect to electric power.

In the course of my statement I will introduce others here who can supplement this testimony and assist in answering questions at the conclusion of our reading. We have avoided burdening these statements with detailed, comprehensive statistics such as those in our quarterly and annual reports to the committee. We shall be glad, of course, to furnish any supplemental data if the need for it arises.

As you know, certain responsibilities under the Defense Production Act and related legislation have been delegated to the Secretary of the Interior by the Director of the Office of Defense Mobilization and, in a few instances, by other prime delegate agencies of the ODM. These responsibilities pertain primarily to petroleum and gas, including pipelines, solid fuels, metals and minerals raw materials, minerals exploration, electric power, and fishery products. Excepting metals and minerals raw materials, as to which the delegation was received in November 1954, these areas of delegate agency responsibility have

been assigned to the Secretary of the Interior, without interruption, since the fall of 1950, following the initial enactment of the Defense Production Act.

Defense Mobilization Order I–13, issued by the Director of the Office of Defense Mobilization on Nobember 12, 1954, recapitulates in one document the functions delegated to the Secretary of the Interior with respect to these industrial areas, which I have named, assigned to him by and pursuant to Executive Order 10480, as amended, and by other Defense Mobilization Orders. ODM's authority, and likewise the Secretary's by delegation, derives not only from the Defense Production Act, but also the National Security Act of 1947 as amended by Reorganization Plan No. 3 of 1953, the Strategic and Critical Materials Stockpiling Act, and the Internal Revenue Code. The functions under these statutory authorities are interrelated and complement each other in our work.

A copy of DMO I–13 is incorporated here. It is appended at the back of the statement.

(The material referred to follows:)

I–Gen–DMO–13
NOVEMBER 12, 1954.

EXECUTIVE OFFICE OF THE PRESIDENT, OFFICE OF DEFENSE MOBILIZATION

DEFENSE MOBILIZATION ORDER–I–13

Subject: Assignment of defense mobilization responsibilities to the U. S. Department of the Interior.

By virtue of the authority vested in me pursuant to the National Security Act of 1947, as amended; Reorganization Plan No. 3 effective June 12, 1953; the Defense Production Act of 1950, as amended; Executive Order 10480 of August 15, 1953, as amended; the Strategic and Critical Materials Stock-Piling Act of 1946, as amended; and in order to facilitate the coordination of Federal policies and programs for current defense activities and readiness for any future mobilization, it is hereby ordered:

1. The Secretary of the Interior will be responsible for the development of preparedness measures relating to those industries assigned to him by and pursuant to Executive Order 10480 as amended and DMO–I–7 and DMO–VII–5. These industries include: (1) solid fuels; (2) petroleum and gas, including pipelines; (3) electric power; (4) metals and minerals for assigned aspects of production and processing, listed in Appendix A to DMC–VII–5, as amended, and for the encouragement of exploration, development and mining; and (5) fisheries' commodities or products as assigned by the Secretary of Agriculture. Such preparedness measures should be undertaken within a work program which in consistent with the Defense Mobilization Assumptions and Objectives for the Government as a whole. To assure such consistency, the work program will be submitted to the Director of the Office of Defense Mobilization for review.

2. The Secretary of the Interior shall:

(*a*) Exercise as required, the priorities and allocations authority assigned to him by and pursuant to Executive Order 10480; (2) when designated, serve as alloting agency under the Defense Materials System; and (3) advise with respect to orders, regulations and directives as they may affect industries assigned to him.

(*b*) Develop, assemble and evaluate data as to the productive capacity and supplies of products, including both domestic and foreign sources, of the assigned industries under partial and full mobilization conditions.

(*c*) Recommend establishment or modification of expansion goals and develop and recommend expansion programs, including advice regarding probable financial incentives and aids, for overcoming shortages of capacity or supply under partial or full mobilization conditions.

(*d*) Analyze the problems involved in maintaining an adequate mobilization base and recommend necessary programs.

(*e*) Develop, assemble, and evaluate data as to materials, equipment, transportation, and other requirements of such assigned industries under partial and full mobilization conditions.

(*f*) Assemble, as requested by the Office of Defense Mobilization, data on requirements for the products of the assigned industries as presented by or obtained on behalf of other agencies of the Federal Government.

(*g*) Develop programs for the encouragement of the exploration, development, and mining of critical and strategic minerals and metals, and administer exploration programs including programs of development relating thereto.

(*h*) Screen and make recommendations on requests for tax amortization, loans, guaranties, and procurement contracts for the assigned industries.

(*i*) Develop and maintain programs, including the necessary orders and regulations, for the operation of the assigned industries under partial and full mobilization conditions, and cooperate with the Office of Defense Mobilization and other appropriate agencies in planning other production and distribution controls related thereto.

(*j*) Provide guidance and leadership to assigned industries in the development of plans and programs to insure the continuity of essential production in event of attack, and cooperate with the Department of Commerce in the identification and rating of essential facilities.

(*k*) Assist the Office of Defense Mobilization in formulating plans for the stockpiling of strategic and critical materials and, to the extent necessary, in the acquisition of such materials and the expansion of domestic sources of supply.

(*l*) Develop and maintain plans to insure the continuity of the essential functions of the Department in event of an attack on the United States.

3. The work program to be undertaken by the Department of the Interior shall indicate the priority and scope of the work to be carried on in each of the areas enumerated above and the industries to be covered. Reports on progress shall be submitted as requested by the Office of Defense Mobilization.

4. This Order is intended to state the responsibilities of the Department of the Interior and does not affect any delegation of authority heretofore conferred upon the Secretary of the Interior.

5. This Order shall take effect on November 12, 1954.

OFFICE OF DEFENSE MOBILIZATION,
ARTHUR S. FLEMMING, *Director.*

Mr. LIEBERT. I would like to summarize for reference purposes the basic responsibilities set forth in that order. DMO I–13 makes the Secretary of the Interior responsible for the development of preparedness measures with respect to the industries assigned to him. This responsibility includes:

(1) Exercise of the priorities and allocation powers, if required, with respect to such products and facilities, except in the fields of metals and minerals, as to which the Department of Commerce holds all priorities and allocation powers, and fishery products, where controls over distribution are retained by the Department of Agriculture;

(2) Serving as allotting agency under the defense materials system, when so designated;

(3) The development, assembly, and evaluation of supply data;

(4) Recommendations as to expansion goals, including advice regarding probable financial incentives and aids, and as to maintenance of an adequate mobilization base;

(5) Development, assembly, and evaluation of data with respect to requirements of the assigned industries for materials and, in some instances, the requirements for the products of these industries;

(6) Recommendations on requests for tax amortization, loans, guaranties, and procurement contracts;

(7) Development of regulations for the operation of the assigned industries under partial and full mobilization conditions; and

(8) Guidance and leadership in the development of plans and programs to insure the continuity of essential production in the event of attack.

These functions are applicable to all of the industrial areas within the purview of the Department, with exceptions noted.

Three other responsibilities, the first two pertaining particularly to metals and minerals and the other applying to the entire Department, are enumerated in the order as follows:

1. Develop programs for the encouragement of the exploration, development, and mining of critical and strategic minerals and metals, and administer exploration programs including programs of development relating thereto.
2. Assist the Office of Defense Mobilization in formulating plans for the stockpiling of strategic and critical materials and, to the extent necessary, in the acquisition of such materials and the expansion of domestic sources of supply.
3. Develop and maintain plans to insure the continuity of the essential functions of the Department in event of an attack on the United States.

In addition to these, the Secretary of the Interior has responsibilities with respect to petroleum storage facilities, by virtue of a delegation from the Defense Transport Administrator.

On the other hand, the Secretary has delegated to the Secretary of Commerce responsibilities for distribution of coal chemicals and petrochemicals, and to the Administrator of General Services certain responsibilities with respect to metals and minerals. Because of the nature of the work of its regular bureaus, the Department also assists other delegate agencies of the ODM.

Within the Department of the Interior, appropriate delegations of the Secretary's authority have been made to several organizational units carrying on functions in these fields. General supervision over the performance of these functions and organizations is divided among the Assistant Secretaries as follows:

The Assistant Secretary, Water and Power Development (Fred G. Aandahl): electric power.

The Assistant Secretary, Mineral Resources (Felix E. Wormser):
Petroleum and gas, Office of Oil and Gas;
Metals and minerals, Office of Minerals Mobilization;
Solid fuels, Office of Minerals Mobilization;
Minerals exploration, Defense Minerals Exploration Administration.

The Assistant Secretary, Public Land Management (Orme Lewis): Fishery products, Fish and Wildlife Service.

The Administrative Assistant Secretary (D. Otis Beasley): Coordination of planning for continuity of essential functions of the Department in event of an attack on the United States.

At this point, I would like to introduce the principal representatives of these areas:

Mr. Edward D. Frye, Special Assistant to the Assistant Secretary, Water and Power Development.

Mr. Hugh A. Stewart, Director, Office of Oil and Gas.

Mr. Spencer S. Shannon, Director, Office of Minerals Mobilization.

Mr. William F. Hahman, Solid Fuels, Office of Minerals Mobilization.

Mr. C. O. Mittendorf, Administrator, Defense Minerals Exploration Administration.

Mr. Edward A. Power, Branch of Commercial Fisheries, Fish and Wildlife Service.

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Before proceeding with comments on each of our several areas of responsibility pertaining to industries, I would like to mention that the Department, including all of its defense units and regular bureaus and offices, has devoted much effort in recent months to planning for the continuity of essential functions of the Department in event of an attack on the United States. A relocation center is being put in operational readiness. Selected personnel presently employed have been designated for relocation, wartime organization and delegations of authority are being developed and refined as a readiness measure, and listing of reserves of industrial executives who would be tapped for service with emergency agencies is proceeding.

Progress is being made in development of delegations of authority to Interior from the Federal Civil Defense Administration, particularly with respect to fuel supplies, to provide a basis for planning effective, coordinated use of FCDA authorities and Defense Production Act priority and allocation authority in meeting immediate post-attack problems.

This is a busy week for the staff of the Office of the Administrative Assistant Secretary, particularly, and other bureaus and offices of the Department in getting ready for participation in the test exercise, Operation Alert 1955, next week, on June 15, 16, and 17. We shall then test our capability of performing our essential wartime functions from relocations sites, working on carefully prepared problems under a set of assumed conditions. The concentration of thought on the nature of post-attack problems which the planning of this exercise required has already produced beneficial results.

I turn now to individual areas of the Department's responsibilities. The first which I shall touch upon briefly relates to fishery products.

FISHERY PRODUCTS

Responsibilities for the production and processing of fishery products were delegated to the Secretary of the Interior by the Secretary of Agriculture. It has not been necessary to establish an expansion program or goal for fishery products or to utilize Government aids or incentives in connection with such expansion of facilities as the commercial fishing industry has undertaken. The former Defense Fisheries Administration served as claimant for the rather specialized needs of the fishing and fish processing facilities for materials and equipment under the controlled materials plan.

The Nation's commercial fisheries are a highly important source of food, in peace or time of war. The regular, periodic assembly of supply data and technical information on capacity of fishing grounds, fleets, and processing plants is the most essential element in mobilization preparedness in this field. Such information and also estimates as to material requirements for planning purposes are provided through the regular operations of the Fish and Wildlife Service, which became the successor in responsibility to the Defense Fisheries Administration when the latter was terminated on June 30, 1953.

The activities upon which I will comment next relate to petroleum and gas.

PETROLEUM AND GAS

On April 30, 1954, the Secretary of the Interior abolished the Petroleum Administration for Defense, and assigned to the Oil and

Gas Division his petroleum and gas mobilization functions, except the authority to issue orders and directives. Subsequently, the name of this organization was changed to the "Office of Oil and Gas."

The basic objective of the Office of Oil and Gas is to take such actions as are necessary and appropriate to assure that, in peace or in war, petroleum and gas will be available to the United States and its potential allies in the quantities of each product required and in the places needed. Your committee is primarily concerned with steps taken to assure readiness to meet wartime requirements for these products.

In the accomplishment of its objective, the Office of Oil and Gas relies upon, and has received in generous measure, the cooperation of other Government agencies, Federal and State, and the petroleum, gas and allied industries.

These industries have been most helpful in making available highly competent technical and executive personnel for Government service, frequently on a without-compensation basis under provisions of the Defense Production Act. Also, many of their top-level executives devote much time and effort to advisory groups established by the Secretary of the Interior. These are hard-working bodies, which upon request for advice on knotty problems, produce extensive studies and reports of very real assistance to the Federal Government.

The industry groups to which I refer are:

(1) The National Petroleum Council, established in 1946, to give unclassified advice to the Secretary of the Interior, and through him the Federal Government on any appropriate petroleum or gas matter of national significance.

(2) The Military Petroleum Advisory Board, established in 1947 and reactivated in 1954, to provide expert industry advice and counsel to the Departments of the Interior and Defense and to ODM on petroleum and gas matters affecting the national security and which in general are classified for security reasons.

(3) The Gas Industry Advisory Council, established in 1951, to advise the Government on gas matters coming under the Defense Production Act.

(4) The Foreign Petroleum Supply Committee, established in 1951 in accordance with the Voluntary Agreement Relating to Foreign Petroleum Supply. This voluntary agreement is based on the authority of section 708 of the Defense Production Act. Government thus obtains up-to-date information on foreign petroleum operations and facilities which is of great value in connection with national defense and security.

The following developments in connection with petroleum and gas programs will be of interest to you:

(*a*) The Military Petroleum Advisory Board recently completed the first worldwide wartime petroleum supply-demand study which assumes use by a potential enemy of ultramodern instruments of war.

(*b*) The National Petroleum Council has just completed a manual to assist the petroleum and gas industry in preparing for an emergency.

(*c*) As a result of these two actions, the petroleum and gas industry is even better informed and is daily taking actions to assure the continuity of supply of petroleum and gas during an emergency.

(*d*) The Office of Oil and Gas recently requested the Office of Defense Mobilization to increase the expansion goals for basic petro-

leum refining facilities, and alkylation facilities, and to establish a new expansion goal for mild "middle of the barrel" hydrogenation facilities. Alkylation is the process to manufacture the key ingredient of high octane aviation gasoline used in reciprocating engines. Mild hydrogenation is a process by which improved diesel fuels and jet fuels can be produced.

I have intentionally not referred to statistics on the several petroleum and gas expansion goals, accelerated tax amortization and defense loan recommendations. These data have previously been submitted to your committee.

Defense mobilization functions with respect to solid fuels, which I shall cover next, are now included in the assignment to the Office of Minerals Mobilization.

SOLID FUELS

In the case of solid fuels, the full range of delegate agency responsibilities, equivalent to those delegated to the Office of Oil and Gas with respect to petroleum and gas, has been placed in the Office of Minerals Mobilization. The solid fuels functions apply to all types of coal, coke, the production of coal chemicals, and the distribution of petroleum coke.

The major work in this field now, as it has been since the beginning of the defense mobilization program after the invasion of Korea, is devoted to the maintenance and expansion of coke production facilities to assure an adequate supply of coke to support steel productive capacity. This program involves not only the installation of coke-making capacity but also the provision of sufficient facilities for the production of metallurgical coal for their operation.

The ODM has established an expansion goal covering these types of facilities. It is geared to the size and rate of the pig-iron expansion goal established by ODM and administered by the Business and Defense Services Administration in the Department of Commerce.

Annual byproduct coke requirements for full mobilization, to operate blast furnaces at capacity and to meet other industrial needs, are estimated at 84 million tons; the ODM goal, as adjusted to account for facilities approved for rapid tax amortization but not started, is 85,800,000 tons. New capacity has been installed and will be installed under the expansion program, but gains are partially offset by the retirement of overage ovens and the abandonment of facilities operated by gas utilities. Our latest estimates indicate that this country would be short a million to 2 million tons of coke to meet full mobilization requirements should an emergency occur now.

Defense requirements for coke and methods to meet these requirements are under constant study. The problem has been discussed with an advisory committee representing all segments of the industry.

On May 10, 1955, we furnished to the staff of your committee detailed statistics through March 31, 1955, on the status of applications for necessity certificates for accelerated tax amortization in the solid fuels industries—by numbers of applications, by dollar values, and by capacities of the facilities involved. It is suggested that these tables be inserted in the record of this hearing.

The CHAIRMAN. They may be inserted.

(The material referred to follows:)

Status of applications for necessity certificates in the solid-fuels industries as of Mar. 31, 1955 (preliminary, subject to revision)

NUMBER OF APPLICATIONS

Classification	Filed	Withdrawn before action	Action pending	Denied	Certified	Canceled after certification	Net certified
Coke:							
Integrated [1]	20				20	2	18
Do	56			12	44	3	41
Merchant	35	1		2	32	6	26
Beehive	7			1	6	3	3
Subtotal	118	1		15	102	14	88
Other coke processes	6			3	3		3
Metallurgical coal:							
Captive	94	2	5	41	46	4	42
Noncaptive	45	1		31	13	1	12
Subtotal	139	3	5	72	59	5	54
Coal in Alaska	4				4	2	2
Nonmetallurgical coal	35			34	1		1
Anthracite	4	2		2			
Briquets	2			2			
Mining machinery	1			1			
Lignite	1			1			
Total	310	6	5	130	169	21	148

DOLLAR VALUES

[In thousands of dollars]

	Filed	Withdrawn before action	Action pending	Denied	Certified	Canceled after certification	Net certified	Percent [2]
Coke:								
Integrated [1]	208,762				208,762	27,900	180,862	80.99
Do	533,241			54,949	478,292	32,687	445,605	60.02
Merchant	161,159	15,600		130	145,429	53,249	92,180	79.65
Beehive	3,089			56	3,033	1,045	1,988	75.77
Subtotal	906,251	15,600		55,135	835,516	114,881	720,635	67.83
Other coke processes	17,242			7,945	9,297		9,297	48.26
Metallurgical coal:								
Captive	219,429	24,441	2,059	107,680	85,249	18,539	66,710	50.54
Noncaptive	32,984	283		24,909	7,792	1,739	6,053	43.21
Subtotal	252,413	24,724	2,059	132,589	93,041	20,278	72,763	55.43
Coal in Alaska	1,794				1,794	656	1,138	65.00
Nonmetallurgical coal	51,377			50,739	638		638	85.00
Anthracite	4,825	4,505		320				
Briquets	94			94				
Mining machinery	282			282				
Lignite	9,500			9,500				
Total	1,243,778	44,829	2,059	256,604	940,286	135,815	804,471	66.50

See footnotes at end of table, p. 10.

Status of applications for necessity certificates in the solid-fuels industries as of May. 31, 1955 (preliminary, subject to revision)—Continued

INCREASE IN CAPACITY [3]

[In thousands of tons]

Classification	Filed	Withdrawn before action	Action pending	Denied	Certified	Canceled after certification	Net certified
Coke:							
Integrated [1]	7,351				7,351	769	6,582
Do	8,769			845	7,924	394	7,530
Merchant	4,056				4,056	1,435	2,621
Beehive	641			35	606	246	360
Subtotal	20,817			880	19,937	2,844	17,093
Other coke processes	429			374	55		55
Metallurgical coal:							
Captive	26,144	2,500,000		11,653	11,991	1,000	10,991
Noncaptive	6,297			4,361	1,936	250	1,686
Subtotal	32,441	2,500,000		16,014	13,927	1,250	12,677
Coal in Alaska	550				550	270	280
Nonmetallurgical coal	15,769			15,769			
Anthracite	260	113		147			
Briquets	60			60			
Mining machinery							
Lignite							

[1] Action by ODM (or DPA) based on recommendations by Department of Commerce; all others based on recommendations by Department of the Interior.
[2] Percent of certified cost eligible for accelerated tax amortization.
[3] The increases in capacities as reported by applicants are partially offset by losses in capacity at facilities abandoned because of age, obsolescence, or economic factors.

Source: Office of Minerals Mobilization, Department of the Interior, May 10, 1955.

Mr. LIEBERT. Would you, Mr. Chairman, like copies of this at this time?

The CHAIRMAN. Yes, I would.

Mr. LIEBERT. I will not read them, Mr. Chairman.

Also we ask similar insertion of a table being furnished at this time showing installed coke capacity for 1950 through 1954 and estimates of installed capacity in future years.

The CHAIRMAN. That may be included in the record.

(The material referred to follows:)

United States byproduct coke capacity, in thousands of tons, by type of plant—Actual capacity for 1949 to 1954, inclusive, estimated capacity from June 30, 1955, to Dec. 31, 1959

Date	Integrated		Furnace		Merchant		Public utility		Total	
	Tons	Percent of total	Tons	Percent of total	Tons	Percent of total	Tons	Percent of total	Tons	Percent of total
Dec. 31, 1949	56,061	76.1	3,188	4.3	10,179	13.8	4,282	5.8	73,710	100
Dec. 31, 1953	61,714	78.9	4,203	5.4	9,846	12.6	2,495	3.1	78,258	100
Dec. 31, 1954	63,703	81.1	4,000	5.1	9,537	12.1	1,356	1.7	78,596	100
June 30, 1955	64,033	81.0	4,000	5.0	9,702	12.3	1,356	1.7	79,091	100
Dec. 31, 1955	64,285	81.1	4,000	5.0	9,702	12.2	1,356	1.7	79,343	100
June 30, 1956	64,086	80.8	4,175	5.3	9,702	12.2	1,356	1.7	79,319	100
Dec. 31, 1956	64,108	80.8	4,175	5.3	9,702	12.2	1,356	1.7	79,341	100
Dec. 31, 1957	65,630	81.2	4,175	5.2	9,702	12.0	1,356	1.6	80,863	100
Dec. 31, 1958	66,027	81.3	4,175	5.1	9,702	12.0	1,356	1.6	81,260	100
Dec. 31, 1959	68,224	81.8	4,175	5.0	9,702	11.6	1,356	1.6	83,457	100

NOTE.—Future capacity is estimated on basis that (*a*) all plants in operation at end of 1954 will remain in operation; (*b*) 3 plants not yet started are included on the assumption that financing will be available; (*c*) 8 projects are excluded because ability to finance construction is very doubtful; and (*d*) anticipated construction by 4 major producers is not included because of inadequate information at this time.

Source: Office of Minerals Mobilization, Department of the Interior, June 8, 1955.

Mr. LIEBERT. The tables on rapid tax amortization which I mentioned include data on actions related to another solid fuels program—the expansion of coal production in Alaska. Although not a large program, its importance to the mobilization effort can be readily seen when it is realized that approximately 80 percent of the coal produced in Alaska is consumed by important military bases.

Defense mobilization functions for minerals and metals, excluding exploration, are carried on by the new Office of Minerals Mobilization.

MINERALS AND METALS

On November 12, 1954, the Office of Defense Mobilization delegated to the Secretary of the Interior, along with other functions, responsibility for the development of preparedness measures for a comprehensive list of metals and minerals. The specific functions included the development and evaluation of supply data; recommendations as to expansion goals and mobilization bases; recommendations on rapid tax amortization, loans, guarantees and procurement; development of regulations for operation of metals and minerals industries under mobilization conditions and guidance to the industries in event of attack; and assistance in planning for stockpiling. Subsequently the responsibility for acting on requests for rapid tax amortization, loans, guaranties, and procurement was redelegated to the Administrator of the General Services Administration, which agency had continued to perform such functions since it became the successor to the former Defense Materials Procurement Agency. The remaining metals and minerals functions, except defense exploration, were made the responsibility of the Office of Minerals Mobilization, which was established in January 1955.

For the metals and minerals assigned to the Secretary of the Interior by ODM, the Office of Minerals Mobilization expects to:

(1) Develop and maintain current projections of domestic production capacity and or imports, under conditions of full or partial mobilization;

(2) For those metals and minerals for which the supply is likely to be inadequate under conditions of full or partial mobilization, recommend specific programs designed to assure adequate supply. Such programs may include establishment of a mobilization base, an expansion goal, a purchase or stockpiling program, financial assistance, or other measures, singly or in combination; and

(3) Develop and maintain plans for assuring supply in event of partial or full mobilization or attack. These plans may include Government orders and regulations and arrangement for industry cooperation, to become effective in an emergency.

In the 6 months since these metals and minerals functions were delegated to the Secretary of the Interior, attention has been concentrated on special problems of an urgent character specifically referred by the Office of Defense Mobilization. These assignments related to lead, zinc, fluorspar, agglomeration facilities for iron ore, bauxite, nickel, antimony, manganese, tungsten, selenium, molybdenum, chemical chromite, and rare earths.

When funds for the Office of Minerals Mobilization are made available for fiscal year 1956, arrangements will be made within the Department of the Interior for carrying out the full scope of responsi-

bilities outlined above for all of the assigned metals and minerals. The Office has depended primarily on the Bureau of Mines and the Geological Survey for staff assistance during the past 6 months and expects to continue this practice during the fiscal year 1956. Tentative organization plans have been made for full-scale operation, including arrangements for close collaboration with industry.

Aside from the urgent spot issues referred by the Office of Defense Mobilization, the most pressing problem at present is of an administrative character. It is important that the Office and its relations with other agencies and with the industry be established and organized in such a way as to enable it to carry out the existing responsibilities as economically and effectively as possible, and yet to change over rapidly to handle effectively any emergency mobilization conditions which might arise.

Minerals exploration activities are carried on by the Defense Minerals Exploration Administration.

MINERALS EXPLORATION

The responsibility of the Defense Minerals Exploration Administration under the Defense Production Act is to encourage the exploration of domestic sources of strategic and critical metals and minerals so as to lessen our dependence upon foreign sources in times of national emergency.

The DMEA carries out its objective by entering into contracts with private parties under which the Government contributes to a part of the cost of the exploration work. Under the current regulations, 33 separate minerals are eligible for Government assistance. The Government will contribute 75 percent of the approved exploration costs for 24 of these mineral commodities and will contribute 50 percent of the approved costs for the remaining 9 mineral commodities.

Briefly, the guidelines of the program are as follows:

1. Projects proposed by private industry are examined by Government geologists and engineers to determine whether they offer a reasonable prospect of making a worthwhile discovery.

2. If the project is approved, the Government enters into a contract with the operator which provides (*a*) a description of the work to be done, (*b*) the allowable costs of the work and the Government's contribution thereto, (*c*) repayment of the Government's contribution by means of a percentage royalty on production resulting from the exploration, and (*d*) a contractual, unrecorded lien on the operator's interest in the property to secure the Government's right to royalty.

3. The exploration work is done by the operator controlling the mining property, not by the Government.

4. The Government periodically inspects the work done to assure compliance with the terms of the contract.

5. The operator's claims for Government participation are paid on a monthly basis as the work progresses and are subject to audit to determine that they are allowable under the contract.

6. The results of the work are evaluated by Government geologists and engineers. If it is considered that a discovery or development from which production may be made has resulted from the work, the Government will so certify in writing to the operator. Thereafter, all production sold is subject to royalty until the sum advanced under

the contract is repaid, without interest, or a fixed period of 10 years or more has elapsed, whichever occurs first.

Regardless of any certification, all production sold during the life of the contract is subject to royalty.

In the case of the large number of projects which are terminated without certification, the operators on those projects are informed that their accounts have been closed and the Government retains no claim or lien against the property.

As of May 31, 1955, DMEA had received 2,650 applications covering proposals for the exploration for 33 different minerals in 42 States and Alaska; 2,416 have been disposed of and the remainder are in process. Almost half of all applications processed have been denied because information available indicated a low probability of making a significant discovery. Seven hundred and fifty of those acted upon have been approved and contracts executed. The total cost of the work approved in executed contracts is about $36 million, of which the Government has agreed to contribute a maximum of about $22 million. A geographical and commodity breakdown of contractual activities is furnished to this committee monthly.

As of May 31, 1955, 260 projects have already found ore; 197 of these have been certified as "discoveries or developments" and many of the remaining 63 will be certified when the results of further work can be more accurately evaluated. On the basis of current information, the estimated recoverable value of the ore reserves inferred on the 197 certified projects is approximately $220 million. Royalties in the amount of about $900,000 have been paid to the Government on about $18 million worth of ore already marketed under the program and several operators have completely repaid the sums received from the Government.

Small business, represented by individuals, partnerships, and corporate enterprises, have had an active part in the program. This is shown by the fact that approximately half of the contracts call for total expenditures of less than $20,000, and that in many of them the operator is obligated to spend less than $3,000 of his own money to complete the authorized work.

As the program is open to everyone, the participants in it represent a cross section of the domestic mining industry, which consists of many small operators who necessarily restrict their activities to small projects and relatively few larger operators who are in a position to undertake costly deep-level exploration. About 89 percent of the total contracts executed to date entail project costs under $100,000 each.

In order to develop an adequate mobilization base for future emergencies, intensive exploration for strategic metals should be carried on before an international crisis occurs. As a result of two world wars and a rapidly expanding economy, we have consumed enormous quantities of strategic materials. Ore deposits which could be easily found have practically all been located, and exploited, where commercially feasible. The search for new sources of minerals must be initiated well in advance of production. Exploration during a period of full mobilization would not only take valuable time, but also require manpower and materials which should then be concentrated on maximum production from known deposits.

This concludes my statement.

65690—55——3

The CHAIRMAN. I want to say that you certainly have made a splendid statement. I had a good many questions outlined here to propound to you, but I think you have answered the questions I expected to ask you.

Senator Sparkman, would you like to inquire?

Senator SPARKMAN. Right on that concluding section, I would like to ask 2 or 3 questions.

I agree with what the chairman has said. It is a most enlightening statement and reflects a great deal of work that has been done.

I take it from your final conclusion of your statement, that you believe the Government must continue this exploration aid?

Mr. LIEBERT. Yes, I do.

Senator SPARKMAN. It is highly important that it be done?

Mr. LIEBERT. I think it is one of the remarkably successful programs of the Government in this field.

Senator SPARKMAN. Do you anticipate that this will be done indefinitely?

Mr. LIEBERT. Will, right now, Senator, of course we do carry out this function under a delegation of authority from the ODM under the Defense Production Act, and so necessarily the continuity of this program under this law depends——

Senator SPARKMAN. Depends upon the action of the Congress?

Mr. LIEBERT. That is right.

Senator SPARKMAN. I anticipate your answer to that.

Do you believe that such a program will be helpful, continued indefinitely?

Mr. LIEBERT. Yes, sir. I would like to see it a permanent piece of legislation.

Senator SPARKMAN. You described domestic ores. Does that include uranium?

Mr. LIEBERT. Yes, sir; that does at the moment.

Senator SPARKMAN. All of these searching parties that we read about in the papers and magazines for uranium, are these a part of your program?

Mr. LIEBERT. No, sir.

Senator SPARKMAN. Most of that is just picnicking, isn't it?

Mr. LIEBERT. It may not be. It may be searching parties. Before a contract is entered into between the Defense Minerals Exploration Administration and a prospector, the particular piece of ground must have been examined by competent Government geologists and engineers. They must decide that it is very probable that ore is in this particular location, before they approve a project for the exploration on that area. It is all done under very rigid guidelines and controlled by the Government, so that the possibility of wasting money in needless scouting around is very much minimized—very much so.

The CHAIRMAN. On a particular project, how much money does the Government furnish?

Mr. LIEBERT. The Government furnishes, in the case of uranium, 75 percent of the total cost of an approved project. The operator puts up the additional 25 percent. If ore is discovered and mined, the Government gets back all of its 75 percent advance in the form of royalties on the production.

Senator SPARKMAN. These explorations are on Government-owned lands, aren't they?

Mr. LIEBERT. No, sir; they are not. They are on privately controlled lands.

Senator SPARKMAN. In the case of the uranium?

Mr. LIEBERT. It may be public land, Senator. Sorry, I misunderstood your question. It may have been public land, but it will have been under control of the operator.

Senator SPARKMAN. I realize that. I am talking about when they go out hunting for it. You talk about staking your claim. That is on Government land?

Mr. LIEBERT. After the claim is staked, and only after the claim is staked, and only after there is a responsible operator ready to undertake activities does the Government participate at all.

Senator SPARKMAN. When this prospector finds a likely site, or one that he thinks is likely, he stakes it off.

What does he get title to? It is not a case of entering the land. It is mining rights?

Mr. LIEBERT. Yes, sir; he gets a mining claim.

Senator SPARKMAN. Then he has the right to go in and——

Mr. LIEBERT. Exploit that property.

Senator SPARKMAN. Exploit it and to pay the Government a certain amount of royalties. If the Government has assisted him in that exploration he has to pay back what has been advanced?

Mr. LIEBERT. That is correct, sir, except that I want to make one minor correction. I think he stakes a mining claim on public lands. He doesn't owe the Government a royalty under a mineral claim. Is that right?

Mr. MITTENDORF. No, he doesn't. He does become obligated to pay royalty if he comes in under DMEA, gets a contract for a definite amount of work, to be prosecuted in a specified manner.

Senator SPARKMAN. It is all included in the contract?

Mr. MITTENDORF. Yes, all under the terms of the specific contract, detailing specific work and its approved costs.

Senator SPARKMAN. How long does that contract run for?

Mr. MITTENDORF. Ordinarily, we do not approve work under any contract that will require more than 2 years to complete. The reason we do not is because we don't want to go into some of these long, visionary type projects. They are too indefinite.

Senator SPARKMAN. Does he get an option to renew or anything of that kind?

Mr. MITTENDORF. No. Not in the sense of circumventing the "2 year work" limitation.

Senator SPARKMAN. Suppose it becomes a paying claim and the 2 years' time runs out.

Mr. MITTENDORF. The repay period is ordinarily 10 years from the date of the contract. We execute a contract today, and it takes the operator 2 years to do the work; he hits ore; we certify; he is then obligated to pay royalties on all production for a period of 10 years from the date of contract or until the sum advanced by the Government is repaid—whichever occurs first.

Senator SPARKMAN. I am talking about how is he going to extend his contract for that 10-year period, or for whatever time may be

necessary to mine it out. You said you give him 2 years. I am asking, does he have any kind of a priority beyond that time?

Mr. MITTENDORF. The terms of our contract have no relation to the title rights to his ground.

Senator SPARKMAN. That is the reason I asked a while ago what kind of title he gets and you told me he gets a mining right. I thought you said that was all carried under the contract and was for a term of 2 years?

Mr. MITTENDORF. There are all sorts of titles, all sorts of leaseholds and other types of ownership.

First, a man goes out on public domain and he stakes a claim. That is good for all time, so long as he does at least $100 worth of work on it each year under the terms of our Federal mining laws. That is his mining claim—held under a possessory right.

Then, if he hits ore, and he spends $500 on that claim, he can apply for a patent to the Bureau of Land Management, and he can get a fee title and thereafter he would pay only taxes. That is the second type of ownership.

The third type of "possessory right" for purposes of the exploration contract is represented by leaseholds. We ordinarily require the lease to run for a period of 10 years, and we also require the lessor to execute an owner's consent to lien in order to protect the Government's rights to royalty in case the lessee should abandon his lease or in case it should be canceled in one way or another. We also deal with leases located on Indian reservations or on State lands, such as the school lands in Utah and Wyoming. In both of the latter cases there are either regulations or statutory provisions which prohibit the lessor from granting a lien on the land. As a rule, the leases run only for a period of 5 years. In such cases we usually waive the owner's consent to lien and the 10-year lease requirement.

Senator SPARKMAN. May I go to another phase: I think this uranium rush is most interesting, and I am sure I would be glad to hear about it all afternoon, but there are many others.

Is the program paying off so far as the discovery of new ores is concerned, or the discovery of ores in which we have been deficient in the past?

Mr. LIEBERT. We think so, Senator. I personally can only express an opinion as to the success of the program, but as I pointed out we uncovered to date an estimated $220 million worth of ore under the program for a Government loan, shall we say, of about $22 million, and some of that would be repaid when the ore is mined.

Senator SPARKMAN. Is most of that in the field of what we might call scarce minerals?

Mr. LIEBERT. Yes, it is. All of these materials for which we have a program are strategic to a greater or lesser degree.

Senator CAPEHART. How many contracts have you made?

Mr. MITTENDORF. 750 contracts; 2,650 applications have been received.

Senator CAPEHART. How many of them have found ore to date?

Mr. MITTENDORF. 260. You read that figure in your statement, Mr. Liebert.

Mr. LIEBERT. 260 projects have found ore.

Senator CAPEHART. What is the estimated value of the ore found by the 260 objects?

Mr. LIEBERT. $220 million, to date.

Senator CAPEHART. That is the estimated worth of it?

Mr. LIEBERT. Yes.

Senator CAPEHART. What minerals were found?

Mr. LIEBERT. That is concisely set forth, sir, in this monthly statement which is sent over.

Senator CAPEHART. Tell us that. Generally speaking, what are they? Does any one predominate?

Mr. MITTENDORF. Iron, zinc, tungsten, fluorspar, copper, rutile, and lead predominate, in that order.

Senator CAPEHART. Do you have a report there showing the exact minerals and the exact location by States?

Mr. MITTENDORF. We don't show them by location. We show them by commodity. That is done by design because we cannot reveal the ore reserves in any one particular property. We lump them up by commodity for purposes of information.

Senator CAPEHART. Why do you say you don't want to give them by projects?

Mr. MITTENDORF. That goes back to the organic act, I believe, of the Department of the Interior. When we evaluate what we think is on a man's ground, we treat our estimates as confidential Government information. If made public many could capitalize on it; they could peddle stock; misinterpret; and do a lot of things. On the other hand, we might be wrong and give the property a black eye.

Senator CAPEHART. You do have the records showing the kind of minerals?

Mr. MITTENDORF. Yes, indeed.

Senator CAPEHART. Which one predominates?

Mr. MITTENDORF. Well, in value, dollar value, fluorspar is high, iron is high, copper is good, tungsten is high, zinc ranks second in value.

Senator CAPEHART. Have you found any mines that are really practical, commercially speaking?

Mr. MITTENDORF. Oh, yes.

Senator CAPEHART. They are now developing them and mining?

Mr. MITTENDORF. Many are producing in a big way.

Senator CAPEHART. Were these discoveries by existing large corporations or were they by what we call wildcatters?

Mr. MITTENDORF. Mostly by medium-sized companies—pretty solid companies.

Senator CAPEHART. They were companies, not individuals?

Mr. MITTENDORF. Some have been by individuals.

Senator CAPEHART. Could we get a breakdown showing that? You say you are going to give us the names of the corporations?

Mr. MITTENDORF. Yes, if you desire the information.

Senator SPARKMAN. Is that set out on monthly reports?

Mr. MITTENDORF. No. The ore reserves data are worked up twice a year. We do not make a final report on a project until the contract is terminated, so when we refer to $220 million worth of ore, we are talking only about those projects that have been wound up and evaluated. Fifty-four percent of all the money committed during the 4 years under this program relates to projects that are still going. The big half of all of our money is in active projects, the results of which we have not yet evaluated.

I know from where I sit that in one case, two 50-year mines have been opened up by one project. I know that in another project, enormous amounts of zinc are being opened up. I know that in still another project, which is down almost 4,000 feet deep in virgin ground, ore was hit last month, and we have every reason to believe that it can be projected up for two or three thousand feet toward the surface. There might be enormous tonnage found by that project.

It will take time before we can evaluate these projects. Those that we have evaluated were entered into early in the program and for the large part were small in dollar value and wound up early in the program.

In these we have an estimated value of about $35 million worth of new wealth in the ground for each $1 million of Government money spent.

Senator SPARKMAN. Of course, I think that is important, but the thing I think is of even greater importance is that it constitutes minerals and metals in which we have had a deficiency, and that are needed for our security.

By the way, is there sufficient incentive in this program, or can there be developed a program of sufficient incentive to take care of our national need of strategic metals and minerals?

Mr. MITTENDORF. There is a very pronounced interest in the program. I will say this: If this program is extended beyond June 30, that the DMEA will go into its fifth year of existence with a larger backlog of applications than it has had for 2 years, and with a very marked public interest in exploration. I happened to have been in mining all my life. There is more interest today in mineral exploration on the part of groups and professional men and industrial firms, who are diversifying their activities toward mining, than I have ever witnessed heretofore.

Senator SPARKMAN. I want to come back to this question: Will you tell this committee that we are making definite headway toward improving our national security status with reference to critical and strategic materials?

Mr. MITTENDORF. I will say that.

Senator SPARKMAN. Through this program?

Mr. LIEBERT. I don't think there is any question about it.

Senator SPARKMAN. Are we by this making a contribution to the status of the free world with reference to critical and strategic materials?

Mr. LIEBERT. Yes.

Senator CAPEHART. You don't do any business in this program outside of the United States, do you?

Mr. MITTENDORF. No.

Senator SPARKMAN. I am not talking about that. But we are improving the supply that is available to the free world without dependence upon nations outside of what we call the free world?

Mr. LIEBERT. That is correct, sir.

Senator SPARKMAN. In other words, I suppose we will never become completely independent, but we are working in that direction; is that right?

Mr. LIEBERT. We are definitely, sir.

Senator SPARKMAN. It seems to me that is the material point for which this program is designed.

The CHAIRMAN. Senator Capehart, I didn't understand just exactly what you wanted these gentlemen to supply for the record.

Senator CAPEHART. The names and addresses of the contracts they have entered into and the locations of the discoveries they indicated they had made.

The CHAIRMAN. Can you do that?

Mr. MITTENDORF. Yes, sir. You would like to have a list giving the identity of all of the recipients of the 750 contracts, and the amount of money involved? We can give it to you, and, indicate the location by State and county.

Senator CAPEHART. Yes. I think we ought to have that. We should know who is receiving the money.

Mr. MITTENDORF. We report that type of information to this committee on a quarterly basis, but it only relates to contracts executed during the particular quarter. We shall prepare a summary report.

Senator CAPEHART. I think there should be possibly a yearly report or twice yearly report showing the names of the people who are getting it and the discoveries that they have made and the other information.

(The information referred to follows:)

Defense Minerals Exploration Administration contracts as of May 31, 1955

NOTE.—No disbursement amounts are shown on in-force contracts since contracts have not been completed.
The expression "term.," meaning terminated, refers to contracts under which no further exploration work will be done and a financial settlement has been made.
The expression "canceled," refers to contracts under which no work was done and which have been rescinded without the expenditure of any Government funds.
The expression "cert.," meaning certified, refers to contracts on which certifications of discovery or development have been issued.

Operator	County	Commodity	Total value	Government participation	Government funds spent	Remarks
ALABAMA						
United States Pipe and Foundry Co	Franklin	Iron	$225,000	$112,500		In force and cert.
Dixie Mines, Inc	Randolph	Mica	3,616	2,712		In force.
Francis C. Bourne	do	do	18,500	16,650	$13,397	Cert. and term.
Smith Mica Co	Clay	do	6,000	5,400	504	Term.
C. E. Smith	Randolph	do	6,750	5,063	2,250	Term.
Dixie Mines, Inc	Clay	do	7,120	6,408	6,408	Term. and cert.
ALASKA						
Earl R. Pilgrim	4th judicial division	Antimony	62,000	46,500		In force.
Admiralty Alaska Gold Mining Co	1st judicial division	Cobalt, nickel	120,000	108,000		In force.
Alaska Copper Mines, Inc	Talkeetna Mining District	Copper	41,530	20,765		In force.
De Coursey Mountain Mining Co	4th judicial division	Mercury	81,000	60,750		In force.
Do	do	do	88,349	66,262		In force.
A. L. Howard	do	Platinum	12,000	10,800		In force.
United States Tin Corp	2d judicial division	Tin	290,600	261,540		In force.
Zenda Gold Mining Co	do	do	159,300	143,370		In force.
The Alaska Metals Mining Co	4th judicial division	Tungsten	178,234	133,676		In force and cert.
Alaska Metals Mining Co	Fairbanks	do	6,200	4,650		In force.
Alaska Mining & Exploration Co., Inc	Hyder district	do	96,120	60,075		In force.
Tillicum Mining Co	1st judicial division	Antimony	24,695	18,521	16,743	Term. and cert.
Alaska Copper Corp	3d judicial division	Copper	112,548	56,274	9,894	Term.
Clarence Wren, Frank Waskey & Charles Wolfe	do	Mercury	25,614	19,211	12,514	Cert. and term.
Alaska Tin Corp	Cape Nome Mine District	Tin	18,000	16,200	15,543	Term.
I. W. & Sara E. Purkeypile	4th judicial division	do	18,000	16,200	15,343	Term.
Alaska Copper Corp	2d judicial division	Tungsten	41,000	30,750	7,926	Term.
ARIZONA						
American Exploration & Mining Co	Pima	Copper	100,000	50,000		In force and cert.
Coronado Copper & Zinc Co	Cochise	Copper, zinc	99,050	49,525		In force.
Magma King Manganese Mining Co	Pinal	Lead, zinc	23,100	11,550		In force.
Yuma Metals, Inc	Yuma	do	75,000	37,500		In force.
Sam Knight Mining Lease, Inc	Santa Cruz	Lead, zinc, copper	73,700	36,850		In force and cert.
Ord Mercury Mines	Gila	Mercury	28,000	21,000		In force.
Wothree Mines	Mohave	Tungsten	33,000	24,750		In force.
Black Pearl Mining Co	Yavapai	do	127,285	95,464		In force.

Bear Canyon Mining Co	Gila	Asbestos	26,220	23,598	19,456	Term.
Sorsen Asbestos Corp	do	do	21,750	19,575	19,575	Term. and cert.
Jaquays Mining Corp	do	do	26,000	23,400	3,780	Cert. and term.
Bore Tree Saddle Asbestos Co	do	do	10,805	9,725	7,336	Term.
Jack L. Neal and Dennis Green	do	do	26,935	24,242	7,484	Term.
Harry R. Scott, et al	do	do	14,136	12,722	12,145	Term.
D. W. Jaquays & Co	do	do	12,000	10,800	10,800	Cert. and term.
Metate Asbestos Corp	do	do	3,050	2,745	1,513	Term.
American Asbestos Cement Corp	do	do	123,889	111,482	14,417	Term.
Richard E. Chilson	Pima	Copper	27,150	13,575	5,100	Cert. and term.
Eugene J. Meyer	Yavapai	do	4,190	2,095		Canceled.
Yucca Mining & Milling Co	Mohave	do	59,470	29,735	1,840	Term.
Banner Mining Co	Pima	do	135,789	67,895	55,530	Term. and cert.
Do	do	do	126,789	63,393	51,128	Term. and cert.
Sherwood B. Owens	Cochise	Copper, zinc	63,926	31,963	31,554	Term.
Fluorspar Producers Corp	Greenlee	Fluorspar	13,850	6,925	360	Term.
Reed & Reed	Mohave	Lead, zinc	20,000	10,000	1,296	Cert. and term.
Gordon R. French	Pinal	Lead	24,500	12,250	11,270	Cert. and term.
Arizona Metals Co	Mohave	Lead, zinc	46,100	23,050		Canceled.
Ike W. Kusisto	Yavapai	do	5,000	2,500	2,500	Term.
Ace Building & Roofing Supplies	Greenlee	Manganese	23,840	17,880	6,092	Term.
Nikas Mining Co	Pinal	Tungsten	59,200	44,400	18,159	Cert. and term.
A. R. Floreen, Geo. B. Dryden & L. N. Duryea	Yuma	do	19,620	14,715	4,322	Term.
Charles M. Taylor	Pima	do	20,560	15,420		Canceled.
Globe-Miami Copper Zinc Corp	Gila	Zinc	63,750	31,875	24,558	Cert. and term.
ARKANSAS						
Ashley J. Gold and Joe Gold	Savier	Antimony	16,913	12,685	8,378	Term.
Westmoreland Manganese Corp	Independence	Manganese	16,000	12,000	10,900	Term. and cert.
Arkansas Manganese Co., Inc	Polk	do	20,000	15,000	8,458	Term.
Westmoreland Manganese Corp	Independence	do	20,000	15,000	13,347	Term. and cert.
Inland Mining Corp	Polk	do	100,000	75,000	14,082	Term.
CALIFORNIA						
Thomas & Janssen Helmke	Butte	Chromium	36,500	18,250		In force.
Harry E. Briggs	Inyo	Lead, zinc	17,300	8,650		In force.
Lakeview Manganese Mines	Plumas	Manganese	13,000	9,750		In force.
California Quicksilver Mines, Inc	Lake	Mercury	88,940	66,705		In force.
Frank Vollmer	San Luis Obispo	do	6,639	4,979		In force.
Ronnie Smith	Contra Costa	do	73,571	55,178		In force.
New Idria Mining & Chemical Co	San Benito	do	365,126	273,845		In force & cert.
Do	do	do	129,331	96,998		In force.
Idaho-Maryland Mines Corp	Nevada	Tungsten	28,850	21,638		In force.
Wm. C. Morrison & Sons	Alpine	do	16,000	12,000		In force.
Incline Mining Co	Mariposa	do	7,500	5,625		In force.
The Glidden Co	Shasta	Zinc, copper	256,344	128,172		In force.
Melvin M. Ford & Oscar Lipnitz	Kern	Antimony	7,500	5,625	3,780	Term.
The Phillip Carey Manufacturing Co	Trinity	Asbestos	79,500	71,550	2,450	Term.
Keystone Asbestos Corp	do	do	3,010	2,709	2,559	Term.
The Phillip Carey Manufacturing Co	Nevada	do	79,500	71,550	16,405	Term.
Keystone Asbestos Corp	Siskiyou	do	10,009	9,008	3,688	Term.

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Defense Minerals Exploration Administration contracts as of May 31, 1955—Continued

Operator	County	Commodity	Total value	Government participation	Government funds spent	Remarks
CALIFORNIA—continued						
Frederick DuMontier & S. K. Skartvedt	Inyo	Asbestos	$5,927	$5,335	$5,173	Term.
L. C. Foreman & Mary R. Foreman	do	Lead-zinc	12,240	6,120	6,120	Cert. and term.
Sierra Copper Co	Calaveras	Copper	16,613	8,307	8,307	Term.
New Penn Mines, Inc	do	do	169,122	84,561	47,085	Cert. and term.
Providence Tuolumne Gold Mines, Inc	Humboldt	Copper-zinc	28,820	14,410	8,560	Cert. and term.
Walabu Mining Co	Kern	Mercury	26,000	19,500	13,005	Term.
Altoona Quicksilver Mining Co	Trinity	do	90,452	67,839		Canceled.
Valle's Mining Syndicate	San Diego	Nickel	31,460	23,595	3,641	Term.
Bessemer Iron Corp	San Bernardino	Iron	10,000	5,000	4,394	Cert. and term.
Black Rock Mining Corp	Mono	Tungsten	115,000	86,250	83,493	Cert. and term.
Miller & Warnken	Inyo	do	60,000	45,000	31,789	Term.
Cordero Mining Co	Santa Clara	Mercury	200,828	150,621	82,397	Term.
G. McGuire Pierce	Fresno	Tungsten	15,000	11,250	11,080	Cert. and term.
Petroleum Investment Trust, Ltd	Kern	do	14,036	10,527	8,162	Term.
Black Rock Mining Corp	Mono	do	61,624	46,218	7,594	Term.
Holmestake Mining Co	Imperial	do	19,000	14,250	6,239	Term.
Surcease Mining Co	San Bernardino	do	33,400	25,050	9,914	Term.
Strawberry Tungsten Mines, Inc	Madera	do	18,648	13,986	6,303	Cert. and term.
Tungsten Prospecting Association	San Bernardino	do	6,700	5,025	1,081	Term.
Thomas A. Hazelton	Tuolumne	do	5,960	4,470	306	Term.
Northfield Mines, Inc	Inyo	do	62,720	47,040	43,021	Cert. and term.
Hidden Hills Co	San Bernardino	do	16,800	12,600	8,866	Term.
Sweeney Tungsten Co., Ltd	Riverside	do	29,800	22,350	2,958	Term.
Tungstar-Hanging Valley Corp	Inyo	do	70,000	52,500		Canceled.
Uranium Mines, Inc	Kern	Uranium	17,630	15,867	7,326	Term.
R. E. Fitzgerald	Amador	Zinc, copper	20,620	10,310	9,293	Cert. and term.
COLORADO						
Lead Carbonate Mines, Inc	San Juan	Lead, zinc	35,000	17,500		In force and cert.
Silver Bell Mines Co	San Miguel	do	79,120	39,560		In force and cert.
Callahan Zinc-Lead Co	Gunnison	do	171,988	85,994		In force.
Silver Bay Mines, Inc	San Juan	do	30,600	15,300		In force.
United States Metals Corp	do	Lead, zinc, copper	113,638	56,819		In force.
Moreno Uranium Corp	do	do	76,000	38,000		In force.
Shenandoah-Dives Mining Co	do	do	211,900	105,950		In force.
Buckskin Joe Mines, Ltd	Park	do	44,875	22,438		In force.
Rare Earths Mining Co	Gunnison	Thorium	35,638	32,070		In force.
Boulder Tungsten Mines, Inc	Boulder	Tungsten	67,649	50,737		In force.
George Jump	do	do	30,180	22,635		In force.
Galtie Boy Mines, Inc	San Juan	do	12,000	9,000		In force.

Johnson Bros. & Prime	Boulder	do	38,000	28,500		In force.
Harold & Thos. Williams	do	do	13,400	10,050		In force.
Woodrow E. Grippe	San Miguel	Uranium	10,250	9,225		In force.
Fred Schwartzwalder	Jefferson	do	23,000	20,700		In force.
J. R. Simplot Co	Montrose	do	90,850	81,766		In force.
Do	do	do	98,641	88,777		In force.
San Juan Uranium Corp	La Plata	do	10,500	7,875		In force.
Ray Ryan	Montrose	do	66,939	50,204		In force.
United States Uranium Co	do	do	31,682	23,762		In force.
Golden Cycle Corp	do	do	30,440	22,830		In force.
Radium Hill Uranium, Inc	do	do	10,124	7,593		In force.
Upper Colorado Metals Corp	San Juan	Zinc, lead	38,600	19,300		In force.
Ben Waltz & Kennett Hewitt	Jefferson	Beryl	7,384	6,645		Cert. and term.
Joseph C. Wild & Wm. Frandson	Larimer	do	2,500	2,250	2,160	Cert. and term.
Lottie M. Loveless	LaPlata	Copper	3,000	1,500	1,500	Term.
Empire Mining & Engineering Co	Boulder	Fluorspar	5,425	2,712	2,712	Cert. and term.
Lupton Mining Co	Clear Creek	Lead, zinc	82,361	41,181	37,793	Cert. and term.
Shelby-Johnson Mines, Inc	Park	do	9,800	4,900	4,900	Term.
Utze Lode Co	Chaffee	do	20,000	10,000	10,000	Cert. and term.
John A. & Ben A. Smith	Clear Creek	do	25,000	12,500	9,292	Term.
Erickson & Baer	Dolores	do	3,200	1,600	935	Term.
Treasure Mountain Gold	San Juan	do	75,200	37,600	27,625	Term.
United Mining & Leasing Corp	Gilpin	do	34,202	17,101	16,500	Cert. and term.
Callahan Zinc-Lead Co	Gunnison	do	30,610	15,305	7,710	Term.
Leadville Lead Corp	Park	do	102,600	51,300	34,066	Term.
Montana Mining Development Co	Clear Creek	do	15,000	7,500	4,374	Term.
Myron L. & Louis M. Jones	Dolores	do	8,260	4,130	4,130	Term.
Mike Vinson & Fred Harris	Summit	do	37,600	18,800	8,064	Term.
Robert Fred Blum	Clear Creek	Lead	2,800	1,400	900	Term.
Defender Mining Co	Custer	Lead, zinc	4,800	2,400	2,400	Cert. and term.
Utze Lode Co	Chaffee	do	49,500	24,750	24,681	Cert. and term.
Arthur N. Sweet	San Juan	do	44,725	22,363		Canceled.
John & Fred A. Joyce	Lake	do	23,700	11,850		Canceled.
W. F. Moenke	Summit	do	3,000	1,500		Canceled.
Outlet Mining Co	Mineral	Lead	11,238	5,619		Canceled and Cert.
Lupton Mining Co., Inc	Clear Creek	Lead, zinc	16,000	8,000		Canceled.
S. E. & W. E. Burleson	Saguache	do	26,600	13,300		Canceled.
Mariposa Mining Co	San Miguel	do	21,200	10,600		Canceled.
Frank Landauer	San Juan	Lead, zinc, copper	15,500	7,750		Canceled.
Henry E. Kolego	do	do	14,600	7,300		Canceled.
George D. Schwiegert	Custer	Thorium	2,888	2,600	2,598	Cert. and term.
Eureka Tungsten	Boulder	Tungsten	20,000	15,000	14,633	Cert. and term.
Tom C. Stanford	do	do	22,250	16,688	16,056	Cert. and term.
Tungsten Mining Co., Inc	do	do	10,000	7,500	7,500	Term.
Cold Spring Tungsten, Inc	do	do	211,080	158,310	133,971	Cert. and term.
Thos. J. Mahoney & D. Mahoney	San Juan	do	19,200	14,400	14,111	Cert. and term.
Jos. M. Smith & Chas. Rugg	Boulder	do	24,400	18,300	17,630	Cert. and term.
United States Tungsten, Inc	Gunnison	do	9,775	7,331	7,331	Term.
Paul H. Bennett	Boulder	do	8,200	6,150	6,128	Cert. and term.
J. L. Starnes	do	do	14,000	10,500	10,500	Cert. and term.
Lloyd P. Mock	do	do	8,902	6,677	6,677	Term.
Vasco Tungsten Corp	do	do	17,500	13,125	11,836	Term.
Jas. McBroon & L. R. Allen	do	do	12,600	9,450	9,000	Term.

Defense Minerals Exploration Administration contracts as of May 31, 1955—Continued

Operator	County	Commodity	Total value	Government participation	Government funds spent	Remarks
COLORADO—continued						
Albert Robitsch & Wm. Brewster	Ouray	Tungsten	$9,650	$7,238	$7,238	Term.
Stanley Larson & Robt. Plummer	Boulder	do	25,000	18,750	18,227	Term.
A. W. Brown	do	do	10,500	7,875	5,292	Term.
Glenn Coughlin & E. L. Henderson	do	do	4,800	3,600	3,600	Term.
M. F. Brown & A. F. Ecker	do	do	13,500	10,125		Canceled.
Hetzer Mines, Inc	do	do	30,400	22,800		Canceled.
Curtis Johnson	San Juan	do	5,000	3,750		Canceled.
Moreno Uranium Corp	Jefferson	Uranium	62,750	56,475	49,753	Cert. and term.
Cherokee Mines	Larimer	do	24,000	21,600	21,251	Cert. and term.
Lowell A. Griffith, Associates	Montrose	do	18,350	13,763	12,229	Cert. and term.
The Realty Co	Gilpin	do	80,000	72,000	70,157	Cert. and term.
Uranium Development Corp	Montrose	do	21,744	19,570	19,570	Cert. and term.
Gold Bar Mines, Inc	Clear Creek	do	7,760	6,984	6,984	Term.
W. L. Weaver	Garfield	do	2,000	1,800	1,800	Term.
Intercounty Corp	Gilpin	do	19,000	17,100	3,202	Term.
J. W. Wood et al	San Miguel	do	12,425	11,183	5,302	Term.
Clarence Louis Neilson	do	do	12,625	11,363	11,250	Cert. and term.
Gamblin & Knowled	do	do	1,289	1,160	472	Term.
Gateway Mining & Development Co., Inc	Mesa	do	51,969	46,772	46,772	Cert. and term.
Uranium Company of America	Gilpin	do	25,000	22,500		Canceled.
Anaconda Lead & Silver Co	Eagle	do	10,000	9,000		Canceled.
Robert E. Williams	San Miguel	do	25,264	22,738		Canceled.
Aztec Mining Co	do	do	6,660	4,995		Canceled.
Cadwell Mining Co	Lake	Zinc	89,922	44,961	21,330	Cert. and term.
East Ridge Co	San Miguel	Zinc et al	60,180	30,090	26,844	Cert. and term.
Bachelor Development Co	Ouray	Zinc, lead	72,503	36,252	34,009	Cert. and term.
Bonita Mining & Development Co., Inc	San Juan	do	32,799	16,400		Canceled.
George L. and Arthur B. Beardsley	Custer	do	14,815	7,408		Canceled.
Cement Creek Leasing Co	San Juan	do	4,850	2,425		Canceled.
Bonita Mining & Development Co., Inc	do	do	18,000	9,000		Canceled.
FLORIDA						
National Lead Co	Duval	Rutile	20,900	15,675	15,209	Term. and cert.
GEORGIA						
Hale-Georgia Minerals Corp	Bartow	Manganese	29,162	21,872		In force.
Thomas Johnson	Monroe	Mica	8,960	7,164		In force.
C. R. Phillips	Upson	do	6,650	5,985		In force.
Foley Mines	Troup	Beryl	2,614	2,353	1,779	Term. and cert.
Stancil & Jones	Pickens	do	8,000	7,200	5,195	Term.

Do	Cherokee	Beryl, mica	4,475	4,028	351	Term.
Empire Mica Co	Lamar	Mica	7,400	6,660	5,630	Term.
Tralyta Mining Co	Union	do	5,716	4,287	983	Term. and cert.
Empire Mica Co	Upson	do	8,600	7,740	2,205	Term.
Alex Teague	Pickens	do	2,994	2,246	1,346	Term. and cert.
Arthur T. Anderson	Upson	do	5,510	4,959	4,267	Term.
M. E. Burleson, Sam & John Phillips	Pickens	do	3,600	3,204	1,629	Term. and cert.
H. C. Mundy & C. F. Thomas	Oconee	do	3,100	2,790	1,094	Term.
IDAHO						
Bradley Mining Co	Valley	Antimony	53,000	39,750		In force.
Do	do	do	203,836	152,877		In force.
Montana Coal & Iron Co	Lemhi	Cobalt	125,050	80,295		In force.
Northfield Mines, Inc	do	do	233,150	163,205		In force.
Calera Mining Co	do	Cobalt, copper	407,340	285,138		In force.
Polaris Mining Co	Shoshone	Lead, zinc, copper	685,955	342,978		In force.
Louis Buchman, L. S. Breckon, J. A. Norden	Custer	Lead, silver	58,990	29,495		Cert.
Whitedelph Mining & Development Co	Bonner	Lead	232,950	116,475		In force.
Sidney Mining Co	Shoshone	Lead, zinc	523,440	261,720		In force.
Silver Buckle Mining Co	do	do	229,500	114,750		In force.
Fred H. & Earl W. Shirts	Custer	do	31,305	15,653		In force.
Triumph Mining Co	Blaine	do	143,354	71,677		In force.
Sunset Mines, Inc	Shoshone	do	101,125	50,563		In force.
E. H. Sowers & S. G. Johnson	Blaine	do	10,662	5,331		In force.
Idaho Custer Mines, Inc	Custer	do	97,738	48,869		In force.
Day Mines, Inc	Shoshone	do	288,710	144,355		In force.
Spokane-Idaho Mining Co	do	do	142,634	71,317		Cert. and in force.
North Fork Mining Co	do	do	44,500	22,250		In force.
Roger V. Pierce	Lemhi	do	64,145	32,073		In force.
Bunker Chance Mining Co	Shoshone	Lead, copper	152,530	76,265		In force.
Hecla Mining Co	do	Lead, zinc, copper	1,058,370	529,185		In force.
Idaho Mining Co	do	Lead, zinc, copper, silver	122,572	61,286		In force.
Bunker Hill & Sullivan Mining & Concentrating Co	do	Lead, zinc, copper	1,098,750	549,375		In force.
Defense Metals, Inc	Lemhi	Thorium	68,265	61,439		In force.
Bradley Mining Co	do	Tungsten	136,000	102,000		In force.
McRae Tungsten Corp	Valley	do	53,800	40,350		In force.
Bitterroot Uranium, Inc	Lemhi	Uranium	16,000	12,000		In force.
Elmer Enderlin & Henry Connolly	Custer	Zinc	27,120	13,560		In force.
Hypotheek Mining & Milling Co	Shoshone	Lead, zinc	70,410	35,205		Cert. and in force.
United Minerals Reserve Corp	Blaine	do	104,000	52,000		In force.
Hermada Mining Co	Elmore	Antimony	44,100	33,075	24,435	Term.
Oscar V. Svensson	do	do	2,445	1,834	1,317	Term.
J. R. Simplot Co	do	Columbium, tantalum	18,190	16,371	7,951	Term. and cert.
Compton I. White	Bonner	Copper	57,310	28,655	1,164	Term.
Centrida Mines, Inc	Lemhi	do	63,140	31,570	31,306	Term. and cert.
Johan P. Holtermans	Custer	Fluorspar	7,793	3,897	1,413	Term.
J. R. Simplot Co	do	do	9,700	4,850	4,789	Term.
Do	Lemhi	do	57,900	28,950	24,056	Term.
Silver Star-Queens Mines, Inc	Blaine	Lead, zinc	136,887	68,444	67,760	Cert. and term.
J. W. Bleazard, Earl & Fred Shirts	Custer	do	8,400	4,200	2,477	Term.
L. S. Heller	Valley	do	600	300	257	Term.
Paymaster, Inc	Blaine	do	95,020	47,510	44,939	Term.
Hope Silver-Lead Mines, Inc	Bonner	do	36,000	18,000	18,000	Term.

Defense Minerals Exploration Administration contracts as of May 31, 1955—Continued

Operator	County	Commodity	Total value	Government participation	Government funds spent	Remarks
IDAHO—continued						
Sunset Minerals, Inc	Shoshone	Lead, zinc	$86,913	$43,457	$42,740	Term.
Rhode Island Mining Co	do	do	23,900	11,950	9,538	Term.
Sun Valley Lead-Silver Mines, Inc	Blaine	do	28,384	14,192	10,735	Term.
Buckskin Mines, Inc	Custer	do	12,200	6,100	558	Term.
Funnell & Majer Mining Co	Bonner	do	53,228	26,614	26,614	Term. and cert.
Wylie Gardner & L. R. Vance	Custer	do	46,270	23,135	3,868	Term. and cert.
Nabob Silver-Lead Co	Shoshone	do	143,450	71,725	50,918	Term. and cert.
Golconda Lead Mines	do	do	90,000	45,000	42,195	Term. and cert.
Spokane-Idaho Mining Co	do	do	188,542	94,271		Canceled.
Signal Mining Co	do	do	21,000	10,500	5,385	Term.
J. L., M. E., and Anne Ausich	Custer	do	39,510	19,755	19,366	Term.
Lawrence S. Berrett	Bear Lake	Lead, copper	5,000	2,500		Canceled.
Day Mines, Inc	Shoshone	Lead, zinc	348,640	174,320	169,589	Term.
South Mountain Mining Co	Owyhee	Lead, zinc, copper	48,860	24,430	24,430	Term. and cert.
Donald D. Hanni	Custer	do	34,000	17,000		Canceled.
J. R. Simplot Co	Bannock	Manganese	34,600	25,950	25,280	Term.
Idaho Beryllium & Mica Corp	Latah	Mica	28,700	25,830	24,299	Term. and cert.
Cosumnes Gold Dredging Co	Valley	Monazite	28,825	25,943	14,264	Term.
Ruby Meadows Mining Co	Idaho	do	14,052	12,647	11,853	Term. and cert.
Verlon W. Vandeventer	Valley	do	2,285	2,057	1,459	Term. and cert.
Cosumnes Gold Dredging Co	do	Monazite, columbium, tantalum.	20,004	18,004	7,994	Term. and cert.
Bradley Mining Co	Lemhi	Tungsten	122,400	91,800	85,269	Term. and cert.
McRae Tungsten Corp	Valley	do	20,351	15,263	11,783	Term. and cert.
Bradley Mining Co	do	do	5,600	4,200	2,821	Term.
North Idaho Mines, Inc	Shoshone	do	13,200	9,900	5,080	Term.
Chief Joseph Mines, Inc	Boundry	do	7,440	5,580	825	Term.
Jack Etherton & Walter Schmittroth	Shoshone	do	24,000	18,000	16,834	Term. and cert.
Mullin Mines Co., Inc	Idaho	do	12,400	9,300	7,857	Term.
Highland-Surprise Consolidated Mining Co	Shoshone	Lead, zinc	282,110	141,055	137,753	Term. and cert.
Snoose Mining Co	Blaine	do	135,000	67,500	57,677	Term.
ILLINOIS						
Goose Creek Fluorspar Mining Co	Hardin	Fluorspar	6,800	3,400		In force.
Ozark-Mahoning Co	do	do	48,600	24,300	10,076	Term.
Minerva Oil Co	do	do	36,014	18,007	11,678	Term. and cert.
Ozark-Mahoning Co	do	do	122,715	61,358	42,741	Term. and cert.
Do	Pope	do	22,240	11,120	11,120	Term. and cert.
IOWA						
J. E. & Lula M. Miller	Dubuque	Lead, zinc	29,700	14,850	14,850	Term. and cert.

MAINE						
Beryllium Development, Inc.	Oxford	Beryl	44,600	40,140		Canc. and cert.
MICHIGAN						
Calumet & Hecla, Inc.	Ontonagon	Copper	113,110	56,555		In force.
Do.	Houghton and Keweenaw	do.	568,193	284,097		In force.
MISSOURI						
National Lead Co.	Madison	Cobalt, nickel	391,540	274,078		Cert.
Lucy McLaren	St. Francois	Lead, zinc	7,050	3,525		In force.
Dale Mining Co.	Newton	do.	31,104	15,552		In force.
Amedee A. Peugnet	St. Francois	Lead	4,200	2,100	1,941	Term.
American Zinc Lead & Smelting Co.	Franklin	Lead, zinc	65,000	32,500	6,378	Term.
Amedee A. Peugnet	Genevieve and St. Francois	do.	3,600	1,800	746	Term.
Bootman & Boswell Mining Co.	Lawrence	do.	9,868	4,934	2,118	Term.
Shelton Mining Co.	Jasper	do.	14,000	7,000	3,331	Term. and cert.
MONTANA						
Norman E. Boe & James Van Gorder	Jefferson	Copper	26,730	13,365		In force.
Boss Mines, Inc.	Cascade	Lead, zinc	24,146	12,073		In force.
Edmund Pohl	Broadwater	Lead, zinc, copper	36,450	18,225		Cert.
Elkhorn Consolidated, Inc.	Jefferson	do.	26,110	13,055		In force.
Neuberg Bros. & Sloan, Inc.	do.	do.	45,400	22,700		In force.
Taylor-Knapp Co.	Granite	Manganese	648,727	486,545		In force.
Irving G. Irving & Robert H. Nelson	Silver Bow	do.	25,830	19,373		In force.
Trout Mining Division, American Machine & Metals, Inc.	Granite	do.	84,610	63,458		In force.
Jennie M. Moore	do.	do.	48,700	36,525		In force.
Peter Antonioli	do.	do.	128,320	80,200		In force.
Minerals Engineering Co.	Beaverhead	Tungsten	121,280	90,960		In force.
Standard Ore & Alloys Corp.	Silver Bow	do.	10,080	7,560		In force.
Sunshine Mining Co.	Granite and Deer Lodge	do.	61,355	46,016		In force.
Boulder Ores, Inc.	Powell	do.	33,600	25,200		In force.
Radon Research Corp.	Jefferson	Uranium	34,175	25,631		In force.
Madisonian Mining & Milling Co.	Madison	Asbestos	24,400	21,960	9,047	Term.
W. J. Noon	Granite	Copper	21,460	10,730	10,477	Term. and cert.
Amador Mining Co.	Sanders	do.	31,900	15,950	10,544	Term. and cert.
Do.	Mineral	do.	72,190	36,095	12,403	Term.
Columbia Mining Co., Inc.	Lewis and Clark	do.	24,318	12,159	7,744	Term.
J. E. Hall	Sanders	do.	21,285	10,643	1,766	Term.
Elmer & Jessie Allen	do.	do.	10,800	5,400	5,400	Term.
Golden Messenger Corp.	Jefferson	Lead-zinc-copper	61,875	30,938		Canceled.
Albert F. Carlson	do.	Lead, zinc	24,900	12,450	1,145	Term.
Roberta Wegener	Beaverhead	Lead, copper	17,500	8,750	8,750	Term.
John Giulio	Jefferson	Lead, zinc	20,600	10,300		Canceled.
James Young & Angus McDonald	Granite	Lead	3,000	1,500		Canceled.
The Golden Anchor Mining & Milling Co., Consolidated, Inc.	Powell	Lead, zinc	34,716	17,358	6,606	Term.
White Pine Lead Co.	Jefferson	do.	28,700	14,350	9,322	Term.
Castle Lead & Zinc Co.	Meagher	do.	99,850	49,925	9,417	Term.

Defense Minerals Exploration Administration contracts as of May 31, 1955—Continued

Operator	County	Commodity	Total value	Government participation	Government funds spent	Remarks
MONTANA—continued						
Lewis B. Stark	Cascade	Lead, zinc	$50,000	$25,000	$907	Term.
Linton Mines	Missoula	Lead	52,540	26,270	4,957	Term.
Alberta K. Romerio	Jefferson	Lead, zinc	21,200	10,600	4,363	Term.
Albert & Jewell Dance	Broadwater	do	17,940	8,970	4,705	Term.
William Mulcahy	Jefferson	Lead	5,092	2,546	2,458	Term. and cert.
Commonwealth Lead Mining Co	Madison	do	61,784	30,892	26,077	Term. and cert.
Hughesville Silver & Lead Mining Co	Judith Basin	do	10,000	5,000	2,664	Term.
Bennett Mining Co	Cascade	Lead, zinc	100,000	50,000	42,696	Term. and cert.
Roy W. Key & O. J. Durand	Granite	do	85,850	42,925	41,712	Term.
Ambassador Mines Corp	Sanders	do	23,049	11,525	3,485	Term.
Edmund E. Phol, H. G. & A. R. Kleinschmidt	Broadwater	Lead, zinc, copper	12,000	6,000	4,523	Term.
Elkhorn Consolidated, Inc	Jefferson	do	25,800	12,900	9,220	Term.
Pittsburg Silver Mining Co	Mineral	Lead, copper, antimony	11,170	5,585	3,677	Term.
American Alloys Metals Inc	Beaverhead	Tungsten	55,284	41,463	23,129	Term. and cert.
Florence Co	Cascade	Lead, zinc, copper	41,380	20,690		Canceled.
Irving G. Irving & Robt. Nelson	Silver Bow	Manganese	7,000	5,250	3,576	Term.
The Taylor-Knapp Co	Granite	do				Canceled.
Hugh G. Nicely & Jacob Schneider	do	do	2,948	2,211		Canceled.
Elkhorn Mining Co	Beaverhead	Thorium	10,215	9,194	4,536	Term.
Double Eagle Tungsten Co	Granite	Tungsten	16,382	12,287	5,139	Term.
Western Mines Co	Powell	do	20,130	15,098	11,972	Term.
Ottawa Tungsten Co	Lewis and Clark	do	47,600	35,700	32,424	Term. and cert.
American Alloy Metals, Inc	Beaverhead	do	66,914	50,186	43,725	Term. and cert.
Combination Development Co	Granite	do	70,000	52,500	21,982	Term.
Alps Mining & Milling Co	do	do	34,862	26,147	26,147	Term. and cert.
David Nieminen	Jefferson	Uranium	15,110	13,599	12,427	Term. and cert.
D. A. McNabb	do	do	22,907	20,616	12,354	Term.
Elkhorn Mining Co	do	do	12,800	11,520	10,643	Term.
Do	do	do	25,695	23,126	20,260	Term.
Glen Zorn and C. Vanman	Cascade	Lead, zinc	22,400	11,200		Canceled.
American Alloy Metals, Inc	Beaverhead	Tungsten				Canceled.
NEVADA						
Murray A. Schutz	Elko	Copper	74,621	37,311		Cert.
Comet Mines, Inc	Lincoln	Lead, zinc	190,000	95,000		In force.
A. C. Nelson & Don H. Clair	Esmeralda	do	8,436	4,218		In force.
Mount Wheeler Mines, Inc	White Pine	do	303,200	151,600		In force.
Combined Metals Reduction Co	Lincoln	do	98,200	49,100		In force.
Raymond Combined Mines Co	do	do	108,466	54,233		In force.
George W. Snyder & George W. Snyder, Jr	Lander	do	27,794	13,897		In force.
United Minerals Reserve Corp	Elko	do	53,500	26,750		In force.

Idamic Mines, Inc.	Lincoln	Manganese	22,160	16,620	----------	In force.
Caviglia & Parodi	White Pine	do	27,300	20,475	----------	In force.
William L. Petersen et al.	Lander	do	10,155	7,616	----------	In force.
Wah Chang Mining Corp.	Lincoln	Tungsten	76,300	57,225	----------	In force.
Schaff, Bednar, Jones & Reinmiller	Mineral	do	7,440	5,580	----------	In force.
Tungsten Mountain Mining Co.	Churchill	do	32,268	24,201	----------	In force.
Knowles Bros.	Elko	do	21,760	16,320	----------	Cert.
Y. Z. Mining Co.	Lincoln	do	77,035	57,776	----------	In force.
El Capitan Mining Co.	Nye	do	41,190	30,893	----------	In force.
TNT, Inc.	Humboldt	do	4,700	3,525	----------	In force.
Platora Uranium Corp.	do	Uranium	20,780	15,563	----------	In force.
Nevada Uranium Co.	Pershing	do	9,145	8,231	----------	In force.
Ely Valley Mines, Inc.	Lincoln	Zinc, lead	86,200	43,100	----------	In force.
E. S. Perry & Robert McPherson	Nye	Antimony	2,640	1,980	----------	Canceled.
Pennsylvania Mines	Lincoln	Copper	25,792	12,896	12,182	Term.
Harold P. Newman	Nye	do	3,780	1,890	1,769	Term.
Coranda Corp.	Mineral	Corundum, andalusite	36,000	32,400	32,400	Term. and cert.
Kaiser Aluminum & Chemical Corp.	Lander	Fluorspar	5,020	2,510	1,099	Term. and cert.
Frank B. Keever	do	Lead, zinc	20,228	10,114	9,766	Term.
Consolidated Eureka Mining Co.	Eureka	Lead	57,050	28,525	24,956	Term. and cert.
Hamilton Consolidated Mines Corp.	White Pine	Lead, zinc	26,740	13,370	13,370	Term.
Grand Deposit Mining Co.	do	Lead, zinc, copper	26,400	13,200	13,200	Term.
Frank Bullock	Elko	do	20,700	10,350	10,350	Term.
Walker Corp.	White Pine	do	88,388	44,194	31,002	Term.
W. F. Dunnigan	Esmeralda	Mercury	8,925	6,694	5,594	Term.
Aubrey Minney	Humboldt	do	17,600	13,200	11,853	Term. and cert.
David G. Wood	Douglas	Tungsten	6,200	4,650	4,647	Term.
Rysh & Corwin	Mineral	do	12,000	9,000	9,000	Term.
Cherry Creek Tungsten Mining Co.	White Pine	do	75,000	56,250	17,706	Term. and cert.
A. J. Lovestedt	Douglas	do	2,855	2,141	2,123	Term.
Mt. Wheeler Mines, Inc.	White Pine	do	170,424	127,818	105,625	Term. and cert.
Baltimore Camas Mines, Inc.	do	do	20,280	15,210	3,513	Term.
Graham Development Corp.	do	do	17,120	12,840	11,655	Term.
Metallics Unlimited	do	do	14,200	10,650	10,341	Term. and cert.
Fred M. Anderson	Pershing	do	21,640	16,230	15,334	Term. and cert.
Irene Sykes	Esmeralda	do	10,600	7,950	3,780	Term.
M. I. A. Mines Co., Joint Venture of Combined Metals Reduction Co., and American Zinc Co. of Tennessee	White Pine	do	171,400	128,550	124,135	Term. and cert.
Bristol Silver Mines Co.	Lincoln	Zinc, lead	195,797	97,899	92,085	Term. and cert.
NEW HAMPSHIRE						
Strafford Mines, Inc.	Grafton	Beryl, mica	6,400	5,760	----------	Canceled.
Henry Lee Robinson	Sullivan	Mica	1,500	1,125	787	Term.
Maderic Mica Co.	Grafton	do	4,510	4,059	1,772	Term. and Cert.
Alstead Mica Miners, Inc.	Cheshire	do	5,600	5,040	2,920	Term.
Richard N. Berry	Grafton	do	14,500	13,050	12,045	Term.
NEW JERSEY						
Fred Busche	Morris	Graphite	1,850	925	889	Term.
Warren Foundry & Pipe Corp.	do	Iron	283,700	141,850	59,825	Term. and cert.

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Defense Minerals Exploration Administration contracts as of May 31, 1955—Continued

Operator	County	Commodity	Total value	Government participation	Government funds spent	Remarks
NEW MEXICO						
Peru Mining Co	Grant	Lead, zinc, copper	$225,000	$112,500		In force.
Laurence Hammond	Luna	Manganese	60,000	45,000		In force.
Richard Vopat	McKinley	Uranium	11,008	9,907		In force.
Uranium Development Corp	Valencia	do	11,641	10,477		In force.
Ira L. Moseley	Hidalgo	Copper	47,000	23,500	$22,990	Term. and cert.
Charles F. William & Charles L. Bradbury	Santa Fe	do	167,401	83,700		Canceled.
Clark & Mathis	Luna	Lead, zinc	12,654	6,327	5,954	Term.
United States Smelting, Refining, & Mining Co	Grant	do	581,843	290,921	211,077	Term. and cert.
Potter & Sims	Santa Fe	Tungsten	77,520	58,140	19,112	Term.
Black Hawk Consolidated Mines Co	Grant	Uranium	20,000	18,000	16,828	Term.
Four Corners Exploration Co	McKinley	do	12,189	10,970	9,628	Term. and cert.
Verne Byrne	Santa Fe	Zinc, lead	24,738	12,369	2,503	Term. and cert.
Mathis & Mathis	Grant	do	28,400	14,200		Canceled.
NEW YORK						
Edward J. Chalmers	Westchester	Uranium	11,020	8,265		In force.
NORTH CAROLINA						
Bauer Mining Co	Macon	Mica	9,100	8,190		In force.
H. J. Twiggs et al	Yancey	do	5,200	4,680		In force.
Rex L. Boone	Cleveland	do	5,650	5,085		In force.
Charlie B. Hensley	Jackson	do	5,350	4,815		In force.
Young & Burleson	Yancey	do	4,350	3,262		In force.
G. C. Rathburn	do	do	5,788	4,341		In force.
W. B. Chrisawn	do	do	3,363	3,027		In force.
Mine Creek Mica Mines	Mitchell	do	7,624	5,718		In force.
Pancake Miners	Avery	do	4,940	3,705		In force.
A. Ward	Macon	do	5,064	3,798		In force.
Roy H. Fouts	do	do	5,348	4,011		In force.
DeGroat, Buchanan & Buchanan	Mitchell	do	3,264	2,448		In force.
E. K. Sparks	do	do	7,716	5,787		In force.
Robert L. Rudasill	Cleveland	do	3,500	2,625		In force.
Ernest Crowder	Lincoln	do	4,946	3,709		In force.
C. R. Phillips et al	Mitchell	do	5,816	4,362		In force.
Ernest Crowder	Gaston	do	4,356	3,267		In force.
Burleson & Keller Mining Co	Mitchell	do	4,688	3,516		In force.
Keller Mining Co	Cleveland	do	5,364	4,023		In force.
Elbert Watson	Avery	do	3,112	2,334		In force.
McKinney & Young	Mitchell	do	4,688	3,516		In force.
John Phillips	Yancey	do	5,840	4,380		In force.
John Phillips & Jim McKinney	Avery	do	5,340	4,005		In force.
Zeb Angel	Macon	do	5,276	3,957		In force.

W. A. Martin	Rutherford	Beryl, mica	4,880	3,660	180	Term. and cert.
Olivine Products Corp	Jackson	Cobalt, nickel	15,392	13,853	9,306	Term.
Foote Mineral Co	Cleveland	Columbium, tantalum, beryl, ten.	30,500	27,450	21,362	Term. and cert.
W. B. Chrisawn et al	Yancey	Mica	3,200	2,880	2,880	Term.
Fred Wilson & John Van Werry	Macon and Jackson	do	4,000	3,600	3,600	Term.
Elk Mica Miners	Avery	do	6,900	6,210	6,129	Term. and cert.
Lin Carpenter et al	Macon	do	8,100	7,290	7,200	Term. and cert.
Conway Revis	Haywood	do	3,300	2,970	2,970	Term.
Everett L. Poston et al	do	do	10,200	9,180	3,001	Term.
S. L. & John Phillips & Lin Carpenter	Macon	do	4,500	4,050	4,050	Term. and cert.
Otis L. & Ira Buchanan	Mitchell	do	3,800	3,420	1,215	Term.
Macon Mica Miners	Macon	do	5,200	4,680	4,680	Term.
A. W. Reid	do	do	1,900	1,710	1,628	Term. and cert.
Forest City Mining Co	Cleveland	do	7,350	6,615	2,150	Term.
Polly Miller Mining Corp	Macon	do	7,700	6,930	5,760	Term.
Murphy Mining Co	Yancey	do	4,050	3,645	450	Term.
H. R. H., Inc	Haywood	do	5,100	4,590	3,078	Term.
Do	do	do	5,550	4,995	4,995	Term.
Hawkins Mining Co	Stokes	do	6,800	6,120	2,470	Term.
Earl Davis & T. J. Berkmeyer	Lincoln	do	3,000	2,700	74	Term.
S. W. Presnell Mica Miners	Yancey	do	11,200	10,080	8,570	Term.
Goodmica Mining Co	Jackson	do	6,750	6,075	5,445	Term. and cert.
B & R Mica Co	Mitchell	do	11,650	10,485	9,763	Term.
Bennett & Johnson Co	Yancey	do	7,000	6,300	3,555	Term.
Hooper Bros	Jackson	do	9,900	8,910	8,271	Term.
Balsam Mica Miners	Yancey	do	2,740	2,466	1,830	Term.
Blue Ridge Mica Co., Inc	do	do	7,500	6,750	6,714	Term.
Bowman Bros	Caldwell	do	3,100	2,790	2,790	Term.
Dave Wise, Ray Wise, & S. L. Phillips	Mitchell	do	7,300	6,570	6,570	Term.
Duncan Mining Co	do	do	8,800	7,920	7,639	Term. and cert.
Fred Taylor	Avery	do	5,450	4,905	4,905	Term. and cert.
Ray E. Bennett	Macon	do	3,300	2,970	2,862	Term.
Richard C. Angel	do	do	5,300	4,770	4,633	Term.
J. P. Bryson	do	do	4,900	4,410	4,410	Term. and cert.
Ben L. Ray & C. E. Hyde	Yancey	do	4,550	4,095	3,960	Term. and cert.
Roy Herbert Fouts	Macon	do	7,540	6,786	6,527	Term. and cert.
American Mica Corp	do	do	11,250	10,125	10,125	Term.
Hardy Calvin Cable	do	do	7,100	6,390	6,008	Term.
Douglas M. Robinson & H. C. West	Buncombe	do	9,400	8,460	7,661	Term. and cert.
Zeb Buchanan	Mitchell	do	6,825	6,142	5,050	Term.
A. J. Goodman	Jackson	do	7,475	6,728	4,795	Term.
Joe C. Vance	Avery	do	6,475	4,856	3,780	Term.
Willis & Snyder Mining Co	Cleveland	do	7,625	5,719	5,719	Term. and cert.
Non-Metallic Minerals Corp	Yancey	do	3,300	2,475	1,485	Term. and cert.
Vance and Odom Mining Co	Avery	do	6,265	4,699	4,331	Term.
Buchanan, Newland et al	Mitchell	do	6,500	4,875	4,875	Term. and cert.
Roy Sparks, doing business as Hector Mining	Yancey	do	5,325	3,994	3,994	Term. and cert.
Burns-Spangler Construction Co	Cleveland	do	6,700	6,030	4,599	Term. and cert.
Dixie Minerals, Inc	Jackson	do	4,600	4,140	2,250	Term.
K. L. Anglin & J. Elkins	Yancey	do	7,500	6,750	6,264	Term. and cert.
W. Harley Roper	Macon	do	4,000	3,600	951	Term.
Grigg & West Co	Yancey	do	9,650	8,685	4,893	Term.

Defense Minerals Exploration Administration contracts as of May 31, 1955—Continued

Operator	County	Commodity	Total value	Government participation	Government funds spent	Remarks
NORTH CAROLINA—continued						
A. Ward	Macon	Mica	$3,800	$3,420	$1,341	Term.
Robert Baker	Mitchell	do	7,370	6,633	2,853	Term.
F. B. Hendricks	Cleveland	do	3,500	3,150	2,054	Term.
Do	do	do	2,500	2,250	2,118	Term.
Do	do	do	1,600	1,440	957	Term.
Do	do	do	4,200	3,780	2,733	Term.
Do	do	do	1,500	1,350	1,208	Term.
Do	do	do	2,400	2,160	103	Term.
Sinkhole Miners	Mitchell	do	35,756	32,180	23,810	Term. and cert.
Yancey Mica Mines, Inc	Yancey	do	4,100	3,690	2,394	Term.
Dixie Minerals, Inc	Jackson	do	5,400	4,860	4,851	Term. and cert.
Piedmont Minerals	Gaston	do	12,400	11,160	6,277	Term. and cert.
Toe River Mining Co	Macon	do	4,500	4,050	3,938	Term.
Yancey Mica Mines, Inc	Yancey	do	14,575	13,117	12,478	Term.
Fletcher O. Phillips	Gaston	do	8,300	7,470	6,805	Term.
Fred Arrowood	Haywood	do	6,400	5,760	5,449	Term.
Cook Mining Co., Inc	Yancey	do	12,470	11,223	11,223	Term. and cert.
Clingman W. Ellis & Walter Grindstaff	Mitchell	do	5,755	5,179	5,125	Term. and cert.
Barn Gay Mining Co	Cleveland	do	2,600	2,340	2,052	Term.
Robert K. Andre	Yancey	do	6,700	6,030	3,802	Term.
Joe A. Beasley	Cleveland	do	5,050	4,545	4,423	Term.
Hoyle Blalock et al	do	do	3,300	2,970	72	Term.
Do	do	do	5,550	4,995	315	Term.
Hyatt & Pressnell	Yancey	do	7,270	6,543	6,354	Term.
Latt Young	Jackson	do	7,300	6,570	6,167	Term and cert.
E. R. Wellmon	Cleveland	do	5,010	4,509	4,509	Term.
E. L. Poston	Haywood	do	3,270	2,943	2,943	Term.
Carolina-Clear Mica Co	Yancey	do	11,575	10,024	10,024	Term.
Everett L. Poston	Haywood	do	4,170	3,753	3,564	Term.
Joe A. Beasley	Cleveland	do	7,000	6,300	6,300	Term.
Beam Mining Co	Avery	do	600	450	225	Term. and cert.
Audy Pittman	Mitchell	do	6,316	4,737	4,189	Term. and cert.
Howard Boone & John Jarrett	do	do	5,292	3,969	3,969	Term. and cert.
Zeb Buchanan & W. R. Johnson	do	do	4,016	3,012	3,012	Term. and cert.
Sam L. Phillips et al	Yancey	do	3,938	2,953	2,863	Term. and cert.
Joe C. Vance	Avery	do	3,613	2,710	300	Term.
John Jarrett	Mitchell	do	4,538	3,404	3,096	Term.
Sam L. Phillips et al	Catawba	do	4,692	3,519	3,135	Term.
John Phillips et al	Yancey	do	3,613	2,710	2,158	Term. and cert.
Sam Phillips et al	Macon	do	10,838	8,128	7,903	Term. and cert.
F. O. Phillips	Mitchell	do	4,193	3,145	180	Term.

Phillips & Keller	Cleveland	do	1,400	1,050	75	Term.
Sam Smith, Jr., et al	Avery	do	4,413	3,310	3,310	Term.
Paul S. Meeker et al	Macon	do	4,700	3,525	3,272	Term.
Beam & Boone	Avery	do	1,816	1,362	979	Term. and cert.
Harold E. Enloe	Macon	do	3,260	2,934	1,271	Term.
Ernest Mica Co., Inc	Mitchell	do	1,300	1,170	964	Term.
Gaston Strategic Minerals Co., Inc	Gaston	do	5,600	5,040	5,040	Term. and cert.
Harold E. Enloe	Macon	do	2,000	1,800	1,461	Term.
Pitt Mica Corp	do	do	2,635	2,371	1,791	Term. and cert.
Trammell Mining Corp	Avery	do	3,400	3,060	900	Term.
Franklin Developers, Inc	Macon	do	3,600	3,240	2,877	Term. and cert.
Fred D. Cabe	do	do	4,885	4,396	4,110	Term. and cert.
Lawrence S. Penland	do	do	500	450	450	Term.
E. H. Zachary	do	do	2,705	2,434	1,065	Term.
Mica Development Corp	do	do	6,000	5,400	5,377	Term.
F. A. Judson	do	do	1,750	1,575	892	Term.
Powder Mill Mining Co	Avery	do	3,120	2,808	2,702	Term.
Lawrence Schmitt	Cleveland	do	3,600	3,240	3,237	Term.
Yancey Mica Mines, Inc	Yancey	do	16,159	14,543	13,893	Term. and cert.
Harold E. Enloe	Macon	do	500	450	90	Term.
Henry Lee Robinson	Wilkes	do	3,725	3,352	1,365	Term.
Hoke C. Meadows	Macon	do	3,056	2,750	2,712	Term.
Tamarack Mining Co	Watauga	do	2,270	2,043	1,932	Term.
C. C. Burleson	Avery	do	2,655	2,389	1,668	Term.
Caleb J. Keller	Macon	do	6,500	5,850	2,624	Term.
Rex L. Boone	Cleveland	do	4,000	3,600	2,307	Term.
W. H. Covington	Rutherford	do	1,490	1,341	86	Term.
A. W. Reid & W. H. Hooker	Macon	do	1,300	1,170	1,170	Term. and cert.
Zeb Angel	do	do	9,200	8,280	8,032	Term. and cert.
Tom Cooper et al	Mitchell	do	4,916	3,687	2,555	Term.
Jeter and Howard Boone	do	do	5,748	4,311	4,311	Term.
South Toe Mining Co	Yancey	do	4,900	3,675	2,323	Term.
Piedmont Minerals, Inc	Gaston	do	5,090	4,581		Canceled.
The Bess Gaston Mica Co., Inc	do	do	5,500	4,950		Canceled.
Joseph H. Ledbetter	Macon	do	2,700	2,430		Canceled.
W. H. Hipps	Buncombe	do	2,900	2,610		Canceled.
Non-Metallic Minerals Corp	Yancey	do	3,010	2,709		Canceled.
The Hitchcock Corp	Cherokee	Talc	32,519	29,267	11,662	Term. and cert.
OKLAHOMA						
Lee D. Uto and W. I. Knox	Pawnee	Uranium	7,725	6,952	1,219	Term.
American Zinc, Lead & Smelting Co	Murray	Zinc, lead	156,000	78,000	27,827	Term.
OREGON						
John McManmon	Crook	Mercury	9,433	7,075		In force.
Paul Wise	Malheur	Antimony	34,727	26,045	283	Term.
Waite Minerals, Inc	Josephine	Copper	30,000	15,000		Canceled.
Bonanza Oil & Mine Corp	Douglas	Mercury	50,056	37,542	27,075	Term. and cert.
Roba & Westfall	Grant	do	20,140	15,105	13,896	Term.
Morris L. & Charles Page	Crook	do	5,600	4,200	3,035	Term.
Owen Pigmon	do	do	20,460	15,345		Canceled.

Defense Minerals Exploration Administration contracts as of May 31, 1955—Continued

Operator	County	Commodity	Total value	Government participation	Government funds spent	Remarks
SOUTH CAROLINA						
Callahan Zinc-Lead Co., Inc.	Aiken	Monazite, columbium, rutile.	$57,593	$47,802	$40,667	Term. and cert.
Keenan Properties	Lawrence	Tin, etc.	48,931	44,038		In force.
C. G. Ortmayer et al	Fall River	Uranium	38,945	35,051		In force.
Mining Research Corp	do	do	52,873	42,307		In force.
Urova Co	do	do	7,160	5,370		In force.
Geo. R. Campbell & Glenn Ventling	Custer	Beryl, mica	6,550	5,895	1,074	Term. and cert.
Carl L. Wiehe & B. A. Gira	do	do	6,686	6,017	1,008	Term.
Jack Stewart	Pennington	do	15,769	14,192	11,811	Term. and cert.
Emery Whitehead et al	Custer	do	8,900	8,010	2,500	Term.
Lewis W. Collingwood	do	do	10,000	9,000	8,224	Term. and cert.
Black Hills Keystone Corp	Pennington	do	23,080	20,772	5,638	Term.
Do	do	do	14,000	12,600	1,297	Term.
Mineral Mills, Inc	Custer	do	2,100	1,890	1,485	Term.
Francis E. Duncan & E. B. Hinebaugh	do	do	3,000	2,700	2,462	Term. and cert.
L. D. Pitts	do	do	5,970	5,373	2,708	Term.
Lewis W. Collingwood et al	do	do	5,250	4,725	3,261	Term. and cert.
Walter S. Clifford	Pennington	do	13,499	12,149		Canceled.
R. H. McHenry	Custer	Columbium, tantalum	3,538	3,184	1,312	Term.
Belle Eldridge Gold Mines, Inc	Lawrence	Lead, zinc	11,600	5,800	2,772	Cert. and term.
Mineral Mills, Inc	Custer	Mica	1,200	1,080	1,039	Term. and cert.
C. E. Weir	do	Uranium	11,037	9,933	3,949	Term.
Urova Co	do	do	9,780	8,802	3,521	Term.
Oxide Metals Corp., Inc	Fall River	do	8,080	7,272	2,996	Term.
TENNESSEE						
L. W. King & C. K. Scott	Bradley and Hamilton	Cobalt	7,520	6,768	5,119	Term.
American Zinc Company of Tennessee	Jefferson	Zinc	1,017,000	508,500		In force.
TEXAS						
Carr Mining Co., Inc	Presidio	Lead	10,395	5,198	938	Term.
Maravillas Minerals Co	Brewster	Mercury	10,450	7,838	2,228	Term.
Amerimex Mining Co	Presidio	do	80,000	60,000	46,465	Cert. and term.
Paulsel Mining Co	Brewster	do	75,900	56,925		Canceled.
National Lead Co	Fort Bend	Sulfur	97,679	48,840		Canceled.
UTAH						
West Park Mining Co	Wasatch	Copper	16,200	8,100		In force.
Big Indian Uranium Corp	San Juan	do	51,260	25,630		In force.
U. S. Smelting, Refining & Mining Co	Salt Lake	Copper, lead, zinc	149,525	74,763		In force.

Combined Metals Reduction Co	Tooele, Utah	Lead, zinc	222,000	111,000		In force.
Do	Salt Lake	do	119,100	59,550		In force.
United Park City Mines Co	Wasatch	do	179,988	89,994		In force.
Chief Consolidated Mining Co	Juab and Utah	do	518,041	259,020		In force.
United Park City Mines Co	Summit, Wasatch and Salt Lake	do	321,534	160,767		In force.
United States Smelting, Refining & Mining Co	Utah	do	617,355	308,678		In force.
Louise W. Garrick	Millard	Tungsten	28,700	21,525		In force.
Willden and Petty	do	do	6,160	4,620		In force.
Spider Uranium Mining Co., Inc	Juab	do	1,952	1,464		In force.
Jesse Glen Shumway & Grant Lee Shumway	San Juan	Uranium	9,680	8,712		In force and cert.
Excalibur Uranium Corp	Grand and Emery	do	38,233	34,410		In force.
Gramlich Minerals, Inc	Emery	do	35,300	31,770		In force.
Gerald Gidwitz	Beaver	do	33,200	29,880		In force.
Thornburg Uranium Mines, Inc	Grand	do	41,910	37,720		In force.
01-Jato Uranium Co	San Juan	do	7,200	6,480		In force.
Mid-Continent Uranium Corp	Grand	do	101,450	76,088		In force.
Uranium Prospectors Co	Emery	do	32,743	24,557		In force.
Utah Uranium, Inc	Washington	do	7,290	5,468		In force.
Amuranium Corp	San Juan	do	147,650	110,738		In force.
New Park Mining Co	Wasatch	Zinc, lead, copper	234,395	117,198		In force.
United Park City Mines Co	do	Zinc	42,000	21,000		In force.
The Brush Beryllium Co	Tooele	Beryl	73,320	65,988	24,865	Term.
Heber Lion Mining Co	Wasatch	Copper	5,000	2,500		Canceled.
Kentucky-Utah Mining Co	Washington	Copper, lead, zinc	35,000	17,500	16,670	Cert. and term.
Fred Staats	Beaver	Fluorspar	25,000	17,500	17,500	Term and cert.
Harrington Mines Co	do	Lead, zinc	125,240	62,620	23,436	Term. and cert.
Privateer Mining Co	Juab	Lead	8,062	4,031	4,031	Term.
Naildriver Mining Co	Wasatch	Lead, zinc	117,770	58,885	58,017	Term. and cert.
Willard Cleghorn	Utah	Lead	18,354	9,177	9,176	Term.
American Fork Consolidated Mines	do	Lead, zinc	16,038	8,019	8,019	Term.
New Quincy Mining Co	Summit	do	50,700	25,350	25,089	Term. and cert.
Duke Page Auto Co	Juab	Lead	17,707	8,854	8,814	Cert. and term.
United Mining Development Co., Inc	Tooele	Lead, zinc	16,548	8,274	8,067	Term. and cert.
Lakeside Monarch Mining Co	do	do	10,000	5,000		Canceled.
Park Heber Consolidated Mining Co	Wasatch	Lead, zinc, copper	27,000	13,500	7,185	Term.
Cecil R. Woodman	Tooele	Tungsten	12,379	9,284	894	Term.
F. F. Hintze	do	do	23,946	17,960	6,562	Cert. and term.
Mid-State Development Co	Millard	do	18,250	13,688	12,695	Term. and cert.
Timco, Inc	Tooele	do	2,250	1,688	1,369	Term. and cert.
Red Canyon Mines	San Juan	Uranium	27,750	24,975	24,975	Term. and cert.
Plateau Mining Co	do	do	18,944	17,050	13,258	Term.
Excalibur Uranium Corp	Emery	do	59,293	53,364	49,163	Term. and cert.
J. R. Simplot Co	Wayne and Garfield	do	71,489	64,340	38,870	Term.
Frank L. & Erma R. Morgan	Emery	do	2,340	2,106	2,106	Term.
Canary Mining Co	Dagget	do	26,725	24,053	24,053	Term.
J. Walter Duncan, Jr	San Juan	do	43,190	38,871	10,074	Term.
Mineral Uranium Corp	Grand	do	1,350	1,215	1,024	Term.
Star Dust Mine, Inc	Tooele	Tungsten	15,240	11,430		Canceled.
Kay and Andrew Hunt	Emery	Uranium	7,368	6,631	4,831	Term.
Intermountain Mining, Inc	Grand	do	9,275	6,956	5,683	Term.
Glenn Mining Co	Piute	do	32,377	29,139	29,139	Term. and cert.
United States Uranium Co	San Juan	do	17,574	13,181	4,973	Term.
Sunnyside Uranium Co	Piute	do	43,460	39,114	39,114	Cert. and term.

Defense Minerals Exploration Administration contracts as of May 31, 1955—Continued

Operator	County	Commodity	Total value	Government participation	Government funds spent	Remarks
UTAH—continued						
Bullion Monarch Mining Co	Piute	Uranium	$27,730	$24,957	$24,813	Term.
Boomerang Mining Co	Grand	do	24,118	21,706	21,438	Cert. and term.
Moreno Cripple Creek Corp	San Juan	do	21,400	19,260	19,170	Cert. and term.
Salina Mining & Smelting Co	Kane	do	16,951	15,255	14,203	Term. and cert.
Ellihill Mining Co	San Juan	do	19,050	17,145	17,076	Cert. and term.
R. A. Glenny & Scott M. Cutler	Piute	do	24,500	22,050	21,801	Term.
Abe Day	San Juan	do	10,900	9,810		Canceled.
White Canyon Mining Co	do	do	52,376	47,138		Canceled.
East Utah Mining Co	Wasatch	Zinc, lead, copper	109,174	54,587	46,355	Term.
VERMONT						
Ruberoid Co	Orleans and Lamoille	Asbestos	71,600	64,440	55,743	Term.
The Philip Carey Manufacturing Co	Orleans	do	38,100	34,290		Canceled.
Ruberoid Co	Lamoille	do	62,500	56,250	54,813	Cert. and term.
Vermont Copper Co	Orange	Copper	51,382	25,691	17,416	Cert. and term.
VIRGINIA						
Belville Gold Mines, Ltd	Buckingham	Lead, zinc, copper	25,500	12,750		In force.
Do	do	do	14,340	7,170		In force.
W. D. and Mavos Baltzley	Powhatan	Mica	6,250	4,688		In force.
Old Dominion Manganese Co., Inc	Shenandoah and Frederick	Manganese	39,600	29,700	4,633	Cert. and term.
Belville Gold Mines, Ltd	Buckingham	Zinc, lead	28,250	14,125	14,125	Term.
WASHINGTON						
Chewelah Copper Co., Inc	Stevens	Copper	63,100	31,550		In force.
Howe Sound Co	Chelan	do	309,990	154,995		In force.
Western States Copper Corp	King	do	22,300	11,150		In force.
Granore Co	Snohomish	do	115,000	57,500		In force.
Robert T. Curtiss and John C. Rogers	do	do	17,600	8,800		In force.
S. J. Holden & Associates	Chelan	do	7,600	3,800		In force.
Mines Management, Inc	Stevens	Lead, zinc	59,150	29,575		In force.
Pacific Northwest Mining Co	do	do	37,284	18,642		In force.
Black Warrior Mining Co	Chelan	Lead, zinc, copper	50,248	25,124		In force.
Dan C. Peacock, Jr. & Sr	Clallam	Manganese	31,000	23,250		In force.
Tungsten Mining & Milling Co	Stevens	Tungsten	34,650	25,988		In force and cert.
Theodore Nasburg, et al	do	Zinc	29,260	14,630		In force.
G. O. P. Antimony, Inc	Okanogan	Antimony	16,080	12,060	8,086	Cert. and term.
Do	do	do	23,200	17,400	4,806	Term.
Laurence Hammond	Stevens	Beryl	16,750	15,075	15,019	Term.

Glacier Mining Co	Whatcom	Copper	7,415	3,708	3,394	Term.
Mount Ranier Mining Co	Pierce	do	3,000	1,500	1,500	Term.
Spokane Mining Syndicate	Ferry	Copper, zinc	44,000	22,000	15,952	Cert. and term.
Attwood Copper Mines, Ltd	do	Copper	109,196	54,598		Canceled.
Grandview Mines Inc	Stevens	Lead, zinc	36,400	18,200	13,598	Term.
Pioneer Mining Co., Inc	do	do	23,651	11,826	10,589	Term.
Jim Creek Mines, Inc	Pend Oreille	do	47,500	23,750	23,750	Term.
American Zinc, Lead, & Smelting Co	do	do	116,500	58,250	17,877	Term.
Grandview Mines	Stevens	do	21,000	10,500	10,500	Term. and cert.
C. O. Davis	Skagit	Lead	38,000	19,000	1,295	Cert. and term.
Farmer Mine Enterprise	Stevens	Lead, zinc	10,000	5,000	4,752	Cert. and term.
The Goldfield Cons. Mines Co	do	do	23,055	11,528	3,672	Term.
American Zinc, Lead, & Smelting Co	Pend Oreille	do	120,000	60,000	60,000	Cert. and term.
Mines Management, Inc	Stevens	Lead, zinc, cadmium	24,000	12,000	12,000	Cert. and term.
Ray R. Whiting, Jr., & Milton P. Roumm	Yakima	Mercury	18,425	13,819	11,024	Term.
Addy Mining Co	Stevens	Tungsten	21,290	15,968	15,028	Term.
Ole Aavestrud & Charles J. Weller	Ferry	do	32,700	24,525	6,940	Term.
Big Q. Tungsten Mine, Inc	Stevens	do	10,200	7,650		Canceled.
WISCONSIN						
Paul Gille	Lafayette	Lead, zinc	24,846	12,423		In force.
Star Mining Co	Marinette	Asbestos	5,000	4,500	3,023	Term.
Cuba Mining Co	Iowa	Lead, zinc	29,154	14,577	10,293	Cert. and term.
Scallon Zinc Mines, Inc	Grant	do	19,100	9,550	6,212	Cert. and term.
Vinegar Hill Zinc Co	Lafayette	do	22,343	7,820	4,177	Cert. and term.
Calumet & Hecla, Inc	do	do	310,430	155,215	155,068	Cert. and term.
Dodgeville Mining Co	Iowa	do	7,500	3,750	128	Term.
Vinegar Hill Zinc Co	Lafayette	do	68,440	34,220	34,220	Cert. and term.
Dodgeville Mining Co	Iowa	do	10,000	5,000	4,966	Cert. and term.
Do	do	do	6,000	3,000	1,410	Term.
Mayer & Thiede Mining Co	Lafayette	do	10,000	5,000	1,350	Cert. and term.
The Dodgeville Mining Co	Iowa	do	7,500	3,750	307	Term.
Eagle-Picher Co	Lafayette	do	191,231	95,615	33,979	Cert. and term.
Dodgeville Mining Co	Iowa	Zinc	8,040	4,020	3,967	Term.
Do	do	do	10,000	5,000	4,974	Cert. and term.
WYOMING						
E. C. Schroeder Co., Inc	Platte	Iron	48,100	24,050		In force.
Continental Sulphur & Phosphate Corp	Park	Sulfur	79,410	39,705	23,706	Cert. and term.
Kenneth L. Porter	Hot Springs	do	99,150	49,575	4,889	Term.

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Senator CAPEHART. I am anxious to see whether or not it is the big corporations that are doing it or is it the little fellows.

Mr. MITTENDORF. Senator, it represents as we have stated, a true cross section of the mining industry. Individual projects range in cost from a low of $500 to a high of $1 million for a single project. In our $1 million projects the operators are obligated to furnish half a million dollars to complete the approved work. We have approved only two projects of this magnitude.

Now, we have stated that more than half of the total contracts executed are with little fellows, that they are under $20,000 each.

Senator CAPEHART. Is there anything in the law that specifies the amount or percentage you will put up and the percentage the other fellow puts up?

Mr. MITTENDORF. Not in the law.

Senator CAPEHART. You put up from zero to how much?

Mr. MITTENDORF. We established the Government participation at either 75 percent or 50–50.

Senator CAPEHART. Did you decide on that amount or did the Congress decide?

Mr. MITTENDORF. No. The Department of the Interior decided,

Senator CAPEHART. That was left up to your judgment?

Mr. MITTENDORF. Yes. The act (under sec. 303) provided for the encouragement of exploration, without specifying the means or suggested method. We, of course, had to consider the various risk elements, mineral by mineral, and then guess how much incentive was necessary to accomplish the objective. In addition, we introduced repayment provisions in the regulations.

Senator CAPEHART. You could treat everybody differently, could you?

Mr. MITTENDORF. No. If one requests aid for the exploration of zinc, for example, the Government contributes 50 percent, whether the operator is big or little. If the exploration involves uranium, the Government participation is 75 percent, regardless of the stature of the applicant.

Senator CAPEHART. What about others? What about fluorspar?

Mr. MITTENDORF. Fluorspar is 50–50. I will give you a complete rundown of Government participation by commodities. The 50–50 commodities are bauxite, chromium, copper, fluorspar, graphite, lead, molybdenum, zinc, and cadmium. The higher risk commodities in which we put up 75 percent are antimony, asbestos, beryl, cobalt, columbium, corundum, diamonds (industrial), kyanite (strategic), manganese, mercury, mica (strategic), monazite and rare earths, nickel, platinum, group metals, quartz crystals, rutile-brookite, talc, tantalum, thorium, tin, tungsten, and uranium.

The CHAIRMAN. Any other questions, Senator?

Senator CAPEHART. I think they have answered most of the questions on the minerals.

The CHAIRMAN. I would like to ask one question, Mr. Liebert: Since borrowing authority funds may be utilized for administrative expenses in carrying out programs under the Defense Production Act, is there some special reason why Interior did not request such funds for this purpose pending congressional appropriation for fiscal year 1956?

Mr. LIEBERT. Well, the whole program is done under a delegation of authority from ODM, and that is the only way in which Interior could conduct this program. We would have to have a whole new legislation if we undertook to do it independently of the Defense Production Act, so the continuance of this activity is dependent upon the continuance of the Defense Production Act, which provides for borrowing authority for this activity.

The CHAIRMAN. It gives you all the authority?

Mr. LIEBERT. Yes. If we wanted to carry it on as an independent activity of the Department, it would require special legislation and then directly appropriated funds, which would go through the regular route.

Representative RAINS. Are you saying that you only get funds that are appropriated to ODM and you don't get any appropriation in the Interior Department for carrying out of these functions that you are charged with?

Mr. LIEBERT. No, sir, only for the Defense Minerals Exploration Administration. That is the only organization for which we get funds under the borrowing authority program.

Representative RAINS. Was there any particular reason why you didn't ask for the necessary appropriations to carry it out, as you say you were hamstrung with it? Do you have sufficient appropriations to carry out all these responsibilities?

Mr. LIEBERT. We have made requests for the necessary funds, covering all of the activities, with the exception of the defense minerals exploration activity, for which we get borrowing authority from the ODM funds, so that we have provided in our regular appropriation request for 1956 for everything, except the Defense Minerals Exploration Administration.

The CHAIRMAN. Whom do you make that request to?

Mr. LIEBERT. That is put in our regular budget, so that you will find in our request for funds for 1956 a certain portion for the Office of Oil and Gas, for the Office of Minerals Mobilization, and for the power activities, which are merged in the office of the Assistant Secretary—Water and Power Development.

Representative RAINS. Why nothing for the exploration activities?

Mr. LEIBERT. Because, sir, this is a special program which involves, in a sense, loans and activity directly provided for in the borrowing authority given to ODM under the Defense Production Act.

Senator CAPEHART. How many people are in this department?

Mr. LEIBERT. The Defense Minerals Exploration Administration, sir?

Senator CAPEHART. Yes.

Mr. MITTENDORF. Our Washington staff averages about 46 people. We have 16 engineers. The remainder are clerks, auditors, and so forth. We utilize——

Senator CAPEHART. I am talking about the Office of Minerals Mobilization, not your department.

In other words, let's get right down to brass tacks. Six months ago they gave you this responsibility. What personnel have you set up to handle it? My best judgment is that you haven't done anything.

Mr. LEIBERT. You are exactly right in that sense, Senator. We did not have any funds. There were no funds within the Department for the proposed Office of Minerals Mobilization, but when we got the

delegated authority, we commenced then trying to set up the kind of organization we would have when we got the appropriation requested of Congress for 1956.

Senator CAPEHART. Are you getting it? Did the House approve it?

Mr. LEIBERT. We got, let's see, I think $250,000 was approved by the House, and the Senate approved $225,000. I don't know where we are as of now, but we had requested substantially more than that.

Senator CAPEHART. Is that sufficient to do the job?

Mr. LIEBERT. We requested more, sir. We will try to get along on what we get and utilize the staff which we have available and call on industry advisory groups. It is going to be a tough management job, but if Congress says that is all the money we can have, we will do the best we can with it.

Representative RAINS. Could I ask a question there?

I have been concerned about Public Law 206. It appears to me—and I hope the Senators will listen—that the Senate Interior Committee, by legislation not referred to the Banking and Currency Committee, which handles the Defense Production Act, is reaching into this Defense Production fund and earmarking great sums of this money for minerals that are not necessarily listed as acute and short; is that correct or not?

Mr. LIEBERT. I am trying to think quickly on Public Law 206. That is not the Minerals Extension Act of 1953, is it?

Senator CAPEHART. If you will yield, let me say the Congressman, I think, stated the question properly, excepting that the legislation has not passed the Senate. It is on the floor of the Senate.

Representative RAINS. 206 passed the Senate in 1953, didn't it, and a new bill this year?

Senator CAPEHART. The one that is on the calendar at the moment I am holding up. That was put on the calendar without any hearings having been held. That is being held up at the moment. I don't know what will happen to it.

Mr. LIEBERT. That is 922.

Senator SPARKMAN. S. 922.

Senator CAPEHART. They reported that bill out without hearings.

Representative RAINS. Public Law 206 came through the Congress in 1953.

Senator CAPEHART. I might say it is being held up at the moment in the Senate.

Representative RAINS. The statement is made here that under 922 that bill could take over $1 billion in the borrowing authority.

Senator CAPEHART. Did you approve that bill?

Mr. LIEBERT. No, sir.

Senator CAPEHART. Were you consulted?

Mr. LIEBERT. We were consulted, sir. I think that is the one that the Senate—may I go off the record, Mr. Chairman?

The CHAIRMAN. Off the record.

(Discussion off the record.)

Senator SPARKMAN. I would be glad to go on the record and say this: That it seems to me that Public Law 206, as originally introduced, was very cleverly worded so as to extend the act—certain features of the Defense Production Act—which have been under the jurisdiction of the Banking and Currency Committees, and then S. 922 this year, seeks to extend Public Law 206, called the Domestic Min-

erals Program Extension Act of 1953, which was simply an extension of certain features of the Defense Production Act.

I believe that both committees—the House and Senate alike—should do their best to regain jurisdiction over this legislation, since it is an essential part of the Defense Production Act.

The CHAIRMAN. I think we will have to take it up with the chairmen of the respective committees.

Senator SPARKMAN. I realize that.

Representative RAINS. You think the watchdog committee itself should not get bit? We are supposed to be the watchdog committee and somebody else is biting us.

Senator SPARKMAN. I think we had better get it back where we will have jurisdiction over it.

Representative RAINS. I agree with you, Senator.

Senator CAPEHART. I don't see how a bill could get through the Senate Interior Committee calling for over a billion dollars worth of expenditures without any hearing.

Representative RAINS. I can't understand how it got through the House without reference to the Banking and Currency Committee, can you, Mr. Chairman?

The CHAIRMAN. No, sir.

Dr. Talle, do you have a question to ask at this time?

Representative TALLE. Yes, Mr. Chairman.

How satisfactorily is tax amortization working?

Mr. LIEBERT. We think it has worked very well during the Korean emergency, and are currently now trying to evaluate the present desirability of continuing to use tax amortization mechanisms for expansion programs. In other words, the whole subject of tax amortization and its application to expanding facilities is being reviewed now, to determine whether it should be continued as a vehicle, and if so, to what extent in the future; but as to whether it has worked in the past, I think it has worked very satisfactorily.

That is my own view.

Representative TALLE. At other hearings I have inquired about titanium. Have you anything new to say about that?

Mr. LIEBERT. I believe Dr. Flemming covered the recent developments in titanium in his presentation before this committee a few days ago. I have nothing to add to that at the moment.

Representative TALLE. Do you want to say anything about the tin industry in Alaska?

Mr. LIEBERT. We are being importuned by several of the Alaska delegation to do things about tin. It is a very complex problem. We find that a project which has been going on for some time now under exploration has recently cut a very large and apparently a very interesting vein of tin, a much discussed project—in the sense I should say it has been talked about many times before this committee—the U. S. Tin Corp. Maybe Mr. Mittendorf would have some information on that.

Mr. MITTENDORF. Well, as you gentlemen know, we all felt that more exploration work was warranted on U. S. Tin. We admitted (during the recent hearings) that the exploration accomplished did not disclose new measurable reserves, but that it did develop a lot of good geologic information, even though much of it was disappointing.

We approved another shot at it, another $64,000 to test new concepts; $27,000 of that sum has been spent. The underground work has been completed, and some of it has been very successful. I just received this report from Alaska, and it says:

> The most noteworthy result of the current program to date has been proof that Cassiterite Dike Ore continues downward at equal or better grade to at least the 200 level, but possibly on a strong rake to the east.

You know, we missed the ore on the 365 level, so we decided to go up on another level to see if the rake plunged more flatly. That is just what it did.

> This report from which I quoted goes on to point out that this new DMEA work has increased the known reserves by about 90,000 tons (about 3 years' operation at current [mill] capacity) and has greatly strengthened the expectation of further extensions downward and to the east.

The estimated grade of the newly disclosed ore is 1.7 percent tin. That is 34 pounds of contained tin per ton. At, let's say, even 30 pounds of tin per ton, the 90,000 tons of newly inferred reserves would represent about $2½ million worth of ore, gross value, that was disclosed by work that cost the Government $27,000.

Senator CAPEHART. Did you say you found a new vein of tin up there?

Mr. MITTENDORF. It is the downward extension of known ore.

Senator CAPEHART. Is there more in that area than you thought?

Mr. MITTENDORF. Yes.

Senator CAPEHART. What are you going to do with it?

Mr. MITTENDORF. When we were before your committee last year we reported that the work done under the previous exploration project was not too encouraging——

Senator CAPEHART. What will you do now?

Mr. MITTENDORF. We have completed our objective insofar as we determined that the ore extended to the 200 level—and we learned more about the deposit.

Senator CAPEHART. Are they producing tin up there now?

Mr. MITTENDORF. The productive end of the enterprise is under GSA. They were to resume milling production, I believe, on the 20th of May.

Senator CAPEHART. Are they supposed to be producing?

Mr. MITTENDORF. They have been down, I think, Senator, since about January or February, due to lack of water.

Representative TALLE. I am interested in knowing who the people are who are doing the work now, the romanticists of last year, or do you have different people?

Mr. MITTENDORF. They are all new faces in the picture now. There is a Mr. Gilmore, who appears to head the company. They have a new superintendent. Mr. Hoagland left about 3 months ago.

Representative TALLE. Who is actually in command now?

Mr. MITTENDORF. Mr. Gilmore, so far as I know.

Representative TALLE. What connection has he with the industry?

Mr. MITTENDORF. He is president of the company. So far as his connection with the industry—frankly, I never heard of him before.

Representative TALLE. It is all very mysterious to me what goes on up there. I would like to know if tin has been found now, who is in command, and so on, and what may we expect for the money expended.

Mr. MITTENDORF. The GSA keeps a very tight rein on their operation. Even the money DMEA is obligated to furnish for the completed exploration work is paid through GSA.

Senator CAPEHART. Where is the report that this committee asked you for on this United States Tin matter about a year ago, or a little less than a year ago? Has that ever been made?

Mr. MITTENDORF. I don't believe I was asked for it, Senator.

Senator CAPEHART. It went to the Secretary. You represent the Interior Department, do you not?

Mr. LIEBERT. Yes.

The CHAIRMAN. There must be a report somewhere.

Mr. LIEBERT. If I recall, Senator, I think the report was an admonition to the Department to review the records of some of the people within the Department, to take corrective action, to see that whatever irregularities had been conducted were cured, and steps were taken so that they should not reoccur.

Representative TALLE. The committee held extensive hearings on that last year, very extensive hearings, and I wonder what resulted from the hearings. Was it a mere slap on the wrist, or may something more effective than that be expected?

Mr. LIEBERT. Well, I think, as Mr. Mittendorf explained, the new faces at the project indicate that a change has taken place up there in the conduct of utilization of Government's money within the company.

Representative TALLE. What happened to the old faces?

Mr. LIEBERT. Of the company? I don't know. I guess they drift away as they get discouraged. I don't know, sir.

Senator CAPEHART. Gentlemen, we asked for a written report, and you haven't given it to us, as far as I know. You have given it to the Solicitor's Office. How long has he had it, now?

Mr. LIEBERT. I am sorry, Senator, I can't give you that specific information, but I do know that the matter was referred to the Solicitor's Office to read the record, to determine if there should have been, on the basis of the information disclosed in the record, any kind of disciplinary action taken against certain of the employees, and I haven't gotten the report on it.

Senator CAPEHART. We haven't gotten the report and you haven't heard from the Solicitor. Are those statements correct?

Mr. LIEBERT. That is right. You haven't gotten the report on that particular thing—was anybody subjected to disciplinary action? That is the sort of thing you meant?

Senator CAPEHART. No. We asked you to make a written report to this committee on the United States tin situation.

Mr. LIEBERT. Yes.

Senator CAPEHART. And you turned it over to the Solicitor. I don't know why, but you turned it over to him, I presume to get an opinion as to whether you should or should not turn that same information over to us, and so far he hasn't given you any answer; is that right?

Mr. LIEBERT. That is right.

The CHAIRMAN. Will you supply us with the report?

Mr. LIEBERT. Yes, sir; Mr. Chairman, when I go back, I will look into this specific question and advise you or the committee on the status of this report.

Representative TALLE. I remember a year ago I administered an oath to some witnesses in this very room, and following that I heard the most fantastic testimony I have ever listened to in my life, by Mr. Fischnaller especially, and I thought that in the light of subsequent testimony something would be done that would be more than a slap on the wrist. I am just wondering what has happened.

Mr. LIEBERT. I wasn't involved in that hearing, sir, and I can't tell you.

The CHAIRMAN. Can you supply the record with the amount of money the Government has put in this project since the hearing we had last fall?

Mr. MITTENDORF. I can, so far as DMEA exploration is concerned. I do not have data on the sums spent by GSA. I will be very glad to give you our figures.

(The information referred to follows:)

Status of Idm–E391, DMEA–2228, United States Tin Corporation, as of May 27, 1955

	Total	Government participation
Contract, Aug. 25, 1952	$226,000.00	$203,400.00
Approved costs to Feb. 28, 1954	218,770.54	
Paid to operator		196,492.99
Operator's share of rental Government equipment		400.50
Balance	7,229.46	6,506.51
Amendment No. 3, Jan. 11, 1955	64,600.00	58,140.00
Approved costs to May 17, 1955	37,644.00	
Paid to operator		28,797.65
15 percent withheld from operator		5,081.95
Balance	26,956.00	24,260.40
Summary:		
Total contract	290,600.00	261,540.00
Approved costs to May 17, 1955	256,414.54	
Paid to operator		225,290.64
15 percent withheld from operator		5,081.95
Operator's share of rental Government equipment		400.50
Balance	34,185.46	30,766.91

Representative RAINS. I would like to ask some questions, Mr. Chairman.

Representative TALLE. May I ask one more?

Representative RAINS. Excuse me.

Representative TALLE. For my information, what details are involved in staking out a claim?

Mr. LIEBERT. I would like to refer that question, sir, to Mr. Mittendorf. He is much more familiar with that than I am.

Mr. MITTENDORF. I have staked a lot of them.

Representative TALLE. Then you are the right person to ask.

Mr. MITTENDORF. The first thing you want to find out is whether or not the ground is open and you are not jumping somebody else's claim. If you are prospecting out in the wilderness, and you don't see any stakes or monuments, you have every reason to believe that the ground is open for location. The first thing you must have is a discovery; you see a vein and you build a monument right on the spot. That is your discovery location.

Then you start pacing off and put in the corners and you locate 20 acres; 20 acres, 600 feet wide astride the vein, and 1,500 feet in length. According to our laws, you can stake just as many such claims as you wish.

Representative TALLE. Suppose somebody moves the landmarks?

Mr. MITTENDORF. Well, they are taking a big chance in so doing. Within 30 days you must dig a 10-foot discovery hole.

Senator CAPEHART. Ten-foot hole?

Mr. MITTENDORF. Yes.

Senator CAPEHART. That might have stopped either the doctor or me.

Do you have to do that personally?

Mr. MITTENDORF. Yes, or have it done by others.

You are on pretty safe ground if you go out in the country and see some ground that looks good and you don't see any monuments. You locate it and then dig your 10-foot hole. Each year thereafter you have to spend a hundred dollars on that claim to hold it. You must record an affidavit that you performed the work.

Representative TALLE. In the Old Testament you get the admonition, "Remove not the ancient landmarks which thy fathers have set." There is nothing new about removing landmarks. I was wondering how reliable staking would be.

Is there a recording, then?

Mr. MITTENDORF. It is recorded.

Representative TALLE. With what official?

Mr. MITTENDORF. The county recorder. Of course, one might locate in unsurveyed areas, where it is difficult to identify the claim by relation to townships and ranges. In those cases, the locators usually tie their claims with landmarks. Of course, you run a risk of somebody knocking your monument over.

Representative TALLE. If somebody fills in the 10-foot hole, then what?

Mr. MITTENDORF. They usually have a scrap on their hands. I understand that last month they sold more ammunition in the State of Wyoming than was sold the last year—all .45's, too.

Representative TALLE. Is that civil defense.

Mr. LIEBERT. Mineral defense.

Representative TALLE. Thank you.

The CHAIRMAN. Mr. Rains.

Representative RAINS. Mr. Liebert, did I understand you to say that under the present situation, in the event of an emergency we would be something over a million tons short on coke?

Mr. HAHMAN. That is correct.

Representative RAINS. Now the coking facilities that have been developed under this program have been developed mostly by the big steel mills?

Mr. HAHMAN. Yes, sir; they have, to the largest extent.

Representative RAINS. Have tax amortizations been granted to the steel mills for that purpose?

Mr. HAHMAN. It has been; yes, sir.

Representative RAINS. What percentage—75?

Mr. HAHMAN. No. The percentage allowed depends on whether it was entirely a new facility or whether it was reconstruction of old worn-out batteries. We have various percentages. It is 45 percent

if they are merely putting in a new facility in anticipation of losing some of their old capacity. If it is an entirely new facility, for an independent company not integrated with steel, they get a percentage rating maybe as high as 85 percent, and at integrated steel plants it will be down in the neighborhood of 75 percent.

Representative RAINS. Mr. Chairman, I would like to include in the record a list of the coking facilities by company that have been established under this program, the tax amortizations in amounts and percentages of each.

The CHAIRMAN. Can you get that information?

Mr. HAHMAN. Yes, sir.

The CHAIRMAN. That may be inserted in the record.

(The information referred to follows:)

Necessity certificates issued by Office of Defense Mobilization (Defense Production Administration) for coke plants through Mar. 31, 1955

Tax amortization No.	Name of company	Location of facilities		Cost in thousands of dollars [1]	Percent of cost certified
		Town	County		
	ALABAMA				
213	Alabama Byproducts Corp.	Tarrant	Jefferson	2,542	85
16192	do	do	do	1,193	50
9166	Moss Iron Co	Trafford	do	228	85
276	Republic Steel Corp	Birmingham	do	6,000	[2] 85
1000	Sloss-Sheffield Steel & Iron Co.	North Birmingham.	do	1,976	85
5207	do	do	do	73	90
5208	do	do	do	150	85
5221	do	do	do	84	50
14314	United States Steel Corp	Fairfield	do	1,150	60
18408	do	do	do	5,330	45
26614	do	do	do	10,660	45
2003	Woodward Iron Co	Woodward	do	4,227	85
	State total			33,613	
	CALIFORNIA				
1956	Kaiser Steel Corp	Fontana	San Bernardino.	17,318	85
440	Yolo Steel & Metal Co	Sacramento	Sacramento	12,100	85
	State total			29,418	
	CONNECTICUT				
907	New Egland Steel Development Corp.	Waterford	New London	17,500	[2] 85
	DELAWARE				
20078	Delaware River Steel Corp	Claymont	New Castle	12,100	85
	ILLINOIS				
1485	International Harvester Co	Chicago	Cook	2,083	85
1769	Granite City Steel Co	Granite City	Madison	4,496	[2] 85
26617	United States Steel Corp	Joliet	Will	15,925	45
	State total			22,504	
	INDIANA				
2321	Inland Steel Co	Indiana Harbor	Lake	3,093	85
3022	United States Steel Corp	Gary	do	15,684	45
14313	do	do	do	3,817	60
18462	do	do	do	16,401	45
26615	do	do	do	49,850	85
22	The Youngstown Sheet & Tube Co.	Indiana Harbor	do	14,681	[2] 85
	State total			103,526	

See footnotes at end of table, p. 48.

Necessity certificates issued by Office of Defense Mobilization (Defense Production Administration) for coke plants through Mar. 31, 1955—Continued

Tax amortization No.	Name of company	Location of facilities		Cost in thousands of dollars [1]	Percent of cost certified
		Town	County		
	IOWA				
1099	North American Steel Co.	Clinton	Clinton	27,137	85
	KENTUCKY				
2333	Allied Chemical & Dye Corp.	Ashland	Boyd	12,500	85
	MARYLAND				
1115	Bethlehem Steel Corp.	Sparrows Point	Baltimore	6,400	[2] 85
1148	do	do	do	8,151	[2] 80
9549	do	do	do	20,000	85
16915	do	do	do	5,838	45
	State total			40,389	
	MASSACHUSETTS				
5136	Eastern Gas & Fuel Associates.	Everett	Middlesex	3,015	40
	MICHIGAN				
3375	Ford Motor Co.	Dearborn	Wayne	4,400	85
25670	do	do	do	304	35
74	Great Lakes Steel Corp.	Aug Island	do	22,503	[2] 85
902	do	do	do	2,063	[2] 85
26360	do	do	do	5,590	50
1401	McLouth Steel Corp.	Trenton	do	10,400	[2] 70
19558	Michigan Iron & Coke	St. Clair	St. Clair	14,949	85
	State total			60,209	
	MINNESOTA				
4990	Interlake Iron Corp.	Duluth	St. Louis	1,225	40
3032	United States Steel Corp.	do	do	1,269	70
10442	do	do	do	6,055	50
	State total			8,549	
	MISSOURI				
3132	Great Lakes Carbon Corp.	St. Louis	St. Louis	5,460	85
19960	do	do	do	10,550	55
	State total			16,010	
	NEW JERSEY				
8142	Koppers Co., Inc.	Kearney	Bergen	265	90
	NEW YORK				
18325	Allied Chemical & Dye Corp.	Tonawanda	Erie	375	50
1145	Bethlehem Steel Corp.	Lackawanna	do	9,890	[2] 85
26080	do	do	do	1,490	25
18	Donner-Hanna Coke Corp.	Buffalo	do	2,370	85
1628	do	do	do	242	95
26490	do	do	do	515	70
20163	Niagara River Steel Corp.	do	do	12,100	85
	State total			26,982	
	OHIO				
2100	Allied Chemical & Dye Corp.	South Point	Lawrence	6,030	85
16529	do	Ironton	do	1,526	50
379	Armco Steel Corp.	Middletown	Butler	18,157	[2] 85
8864	Interlake Iron Corp.	Toledo	Lucas	4,159	85
26263	Jones & Laughlin Steel Corp.	Cleveland	Cuyahoga	499	45
3442	Koppers Co., Inc.	Warren	Trumbull	2,087	70
82	Republic Steel Corp.	Cleveland	Cuyahoga	12,950	[2] 50
281	do	do	do	7,000	[2] 85
16629	United States Steel Corp.	do	do	1,452	45
17803	do	Lorain	Lorain	6,303	50
18472	do	Cleveland	Cuyahoga	1,495	45

See footnotes at end of table, p. 48.

Necessity certificates issued by Office of Defense Mobilization (Defense Production Administration) for coke plants through Mar. 31, 1955—Continued

Tax amortization No.	Name of company	Location of facilities		Cost in thousands of dollars [1]	Percent of cost certified
		Town	County		
	OHIO—continued				
26491	United States Steel Corp	Cleveland	Cuyahoga	1,975	45
26600	do	Lorain	Lorain	12,930	50
23469	The Youngstown Sheet & Tube Co.	Youngstown	Mahoning	10,000	50
27896	do	do	do	8,186	50
	State total			94,749	
	PENNSYLVANIA				
1117	Bethlehem Steel Corp	Johnstown	Cambria	5,500	[2] 85
7893	do	Bethlehem	Northampton	11,921	85
26079	do	Steelton	Dauphin	6,845	55
15183	Central Iron & Steel Co	Phoenixville	Chester	8,000	85
15185	do	Harrisburg	Dauphin	8,000	85
175	Crucible Steel Co	Midland	Beaver	3,166	[2] 85
8863	Interlake Iron Corp	Erie	Erie	1,315	50
5	Jones & Laughlin Steel Corp	Aliquippa	Beaver	6,949	[2] 80
10120	do	Pittsburgh	Allegheny	17,277	75
27454	do	Aliquippa	Beaver	783	45
1315	Lucerne Coke Co	Lucerne	Indiana	1,719	75
24967	do	do	do	475	75
19004	Philadelphia Coke Co	Philadelphia	Philadelphia	125	30
1495	Pittsburgh Coke & Chemical Co,	Neville Island	Allegheny	6,194	85
19449	Pittsburgh Steel Co	Monessen	Washington	11,240	85
6588	Revere Coke Corp	Revere (Uledi)	Fayette	28	90
25953	Sharon Steel Corp	Farrell	Mercer	16,500	85
14450	Sykesville Coke Co	Sykesville	Jefferson	360	60
789	United States Steel Corp	Morrisville	Bucks	31,171	[2] 85
3014	do	Clairton	Allegheny	19,146	25
14316	do	do	do	12,570	45
14773	do	do	do	1,200	60
18455	do	do	do	17,386	45
26616	do	do	do	70,636	45
	State total			258,506	
	TENNESSEE				
1816	Johnson Coke Co	Rockwood	Roane	210	90
	TEXAS				
300	Armco Steel Corp	Houston	Harris	5,825	[2] 80
	VIRGINIA				
2231	Allied Chemical & Dye Corp	Hopewell	Prince George	6,000	85
9134	Wise Coal & Coke Co	Dorchester	Wise	241	80
	State total			6,241	
	WEST VIRGINIA				
381	National Steel Corp	Weirton	Hancock	4,210	[2] 85
19917	do	do	do	24,750	60
8457	Sharon Steel Corp	Fairmont	Marion	5,522	85
406	Wheeling Steel Corp	Follansbee	Brooke	8,750	[2] 85
18970	do	do	do	5,319	45
	State total			48,551	
	WISCONSIN				
1387	Milwaukee Solvay Coke Co	Milwaukee	Milwaukee	1,394	85
16916	do	do	do	3,323	50
	State total			4,717	
	United States total			835,516	

[1] As estimated by applicant.
[2] Certified on basis of recommendation by National Production Authority; all others certified on basis of recommendation by Defense Solid Fuels Administration (Department of the Interior).

Representative RAINS. Now on the gas lines, what is the situation in the event of an emergency of natural gas in this country? Do we have sufficient lines now to take care in event of emergency?

Mr. LIEBERT. Mr. Rains, I would like to direct the question to Mr. Stewart.

Mr. STEWART. The gas problem is considerably different from some of these others because gas, being a regulated industry, the Federal Power Commission grants a certificate, allowing or requiring the company, a gas transmission company, to build a line to move a certain quantity of gas per day and per year.

That gas is sold in turn to utility customers, but it can only be sold to the extent that the transmission line has it available. Now, that gas is available and would continue to be available in an emergency, but if we had all-out war, there would be greatly increased additional demands for all fuels—gas included. And as of now, the gas systems in general are loaded approximately to capacity.

Representative RAINS. I would assume that in this setup you have set up expansion goals that you wanted to obtain, looking toward an emergency; haven't you?

Mr. STEWART. We have.

Representative RAINS. Have those goals been met?

Mr. STEWART. No, simply because under the operation of the Natural Gas Act, transmission lines or facilities are not constructed merely to be held in standby capacity, and each facility, as it is put in, is loaded up to its capacity just as promptly as it can be, so all we can do under the laws, as they stand, is to encourage the building of additional gas lines to the extent possible in order to have more gas flowing through more pipelines into the critical areas.

Representative RAINS. Have you encouraged that by the issuance or by the recommendation, I should say, of tax amortization?

Mr. STEWART. Yes.

Representative RAINS. I would like, Mr. Chairman, to have a list of all the tax amortizations issued to gas lines, the amounts and the names of the companies.

The CHAIRMAN. Can you furnish that information?

Mr. STEWART. Yes, sir. We will tabulate it for you.

Representative RAINS. All right.

(The letter, together with Mr. Stewart's letter commenting on the data and supplementing his testimony, follows:)

DEPARTMENT OF THE INTERIOR,
OIL AND GAS DIVISION,
Washington 25, D. C., June 15, 1955.

Hon. PAUL BROWN,
Chairman, Joint Committee on Defense Production,
House of Representatives, Washington 25, D. C.

MY DEAR MR. BROWN: At the hearing before your committee on June 9, I was asked certain questions with respect to tax amortization and requested to furnish a list of all necessity certificates which have been issued to date for accelerated tax amortization on gas transmission, distribution, and storage facilities. This list is enclosed herewith.

In reviewing the list, I notice a wide range of difference of percentages certified and I believe there should be some comment made thereon.

Gas transmission facilities are normally eligible for a 25 percent certification; gas storage projects are eligible to 40 percent certification. Gas lines built specifically to serve a defense plant exclusively are, in general, eligible for the same per-

centage certification as the facility which it serves. Likewise, gas lines built to serve some military installations, such as an airbase, are eligible for special consideration and the percentage allowed varies with the expected use of the airbase.

In reviewing the transcript of the hearing on June 9, I find that certain answers I made to Senator Capehart and Representative Rains might be misleading. One of these questions had to do with the extent to which gas transmission facilities had applied and received certificates of necessity for accelerated tax amortization. I told the committee that the industry in general had not made extensive use of the privilege. This statement was generally correct. From the beginning a few interstate pipelines applied for such certificates and intrastate lines made more extensive use of the privilege. Other interstate lines did not apply because of the decision of the Federal Power Commission which, in the beginning, ruled that any tax savings under accelerated tax amortization should be passed on to customers at lower rates.

I find also that the Federal Power Commission's attitude toward such certificates applying to the electric power industry was identical with their position with respect to gas transmission companies. The power utilities, however, were almost entirely intrastate companies not subject to Federal Power Commission's jurisdiction and these companies made extensive use of the privilege of applying for accelerated tax amortization. (See p. 71.)

I testified also that early in 1953 the Federal Power Commission had worked out a new set of rules. I find that the date was actually December 3, 1953, in Opinion No. 264, Docket No. R–126, *In the Matter of Treatment of Federal Income Taxes as Affected by Accelerated Amortization.* I am enclosing a copy of this opinion which I think will clarify the situation with respect to gas companies and electric power companies.

As a matter of further interest, 106 applications by gas companies were approved for certificates of accelerated tax amortization prior to the Federal Power Commission decision of December 3, 1953, and 14 applications were approved after that date. However, after the issuance of Federal Power Commission Opinion No. 264, a number of large interstate transmission companies have shown an interest and the Office of Oil and Gas now has under review 20 such applications in the amount of $335 million.

If there is further information this office can furnish the committee, please so advise.

Sincerely yours,

H. A. STEWART, *Director.*

Necessity certificates for accelerated tax amortization, gas transmission, distribution, and storage facilities, issued up to and including June 10, 1955

Tax amortization No.	Name of applicant	Date certified	Total cost of project	Percent certification
1983	Panhandle Eastern Pipe Line Co	Sept. 21, 1951	$31, 790, 202	25
2033	Trunkline Gas Co	do	80, 000, 000	25
2121	Lavaca Pipe Line Co	Nov. 16, 1951	1, 493, 996	80
2602	do	Aug. 9, 1951	1, 000, 000	80
3664	Allied Gas Corp	July 12, 1951	529, 239	60
3946	Southern Natural Gas Corp	Sept. 21, 1951	22, 626, 400	25
5881	Consolidated Gas, Electric Light & Power Company of Baltimore	do	569, 198	35
6872	United Gas Corp	Sept. 18, 1951	52, 309	50
7489	Central Arizona Light & Power Co	Sept. 21, 1951	240, 000	50
7767	Humble Oil & Refining Co	July 29, 1952	1, 480, 900	50
9065	St. Charles Pipe Line Co	July 24, 1951	992, 798	80
9111	Pacific Gas & Electric Co	Mar. 26, 1952	151, 455	50
10357	Texas Eastern Gas Transmission Corp	Apr. 15, 1952	99, 209, 900	25
11497	North Shore Gas Co	Nov. 25, 1952	132, 144	50
11534	Phillips Natural Gas Co	Apr. 28, 1952	351, 245	40
11651	South Eastern Michigan Gas Co	Mar. 25, 1952	2, 300, 000	25
11894	Las Vegas Gas Co	do	58, 729	66. 5
11923	Consolidated Gas, Electric Light & Power Company of Baltimore	June 30, 1952	163, 800	35
12569	Pacific Gas & Electric Co	Mar. 6, 1952	47, 004	40
12571	do	Mar. 19, 1952	258, 687	50
12576	do	Mar. 7, 1952	85, 008	50
14137	Alabama-Tennessee Natural Gas Co	July 1, 1952	37, 541	75
14277	Pan American Gas Co	Mar. 20, 1952	1, 526, 000	25
14546	Union Carbide & Carbon Corp	do	1, 526, 000	25
14585	Wilcox Trend Gathering System	Apr. 27, 1953	10, 168, 156	25
14641	United Gas Pipe Line Co	Mar. 12, 1953	53, 983	50

Necessity certificates for accelerated tax amortization, gas transmission, distribution, and storage facilities, issued up to and including June 10, 1955—Continued

Tax amortization No.	Name of applicant	Date certified	Total cost of project	Percent certification
15019	Pacific Gas & Electric Co	Mar. 17, 1952	$29,352	50
15162	Montana-Dakota Utilities Co	July 10, 1952	146,404	50
15657	Michigan Gas & Electric Co	Apr. 11, 1952	142,680	50
15773	Houston Natural Gas Corp	Mar. 28, 1952	550,000	70
16453	Consolidated Gas Utilities	Mar. 17, 1952	488,976	45
16503	Panhandle Eastern Pipe Line Co	Mar. 20, 1952	11,390,195	25
16681	do	Feb. 26, 1952	510,000	55
16967	Trunkline Gas Co	Apr. 9, 1952	610,000	18
17286	Consolidated Gas Utilities Corp	Mar. 5, 1952	124,114	60
17431	Southern Natural Gas Co	Mar. 17, 1952	7,936,100	25
17673	Wisconsin Natural Gas Co	Apr. 15, 1952	400,600	25
17721	Mississippi Valley Gas Co	Apr. 10, 1952	169,000	40
18487	Cincinnati Gas & Electric Co	Apr. 15, 1952	97,860	25
18553	Panhandle Eastern Pipe Line Co	Mar. 28, 1952	2,822,000	25
18849	The Texas Co	June 27, 1952	700,000	50
18933	Humble Oil & Refining Co	July 30, 1952	1,717,530	64
19058	Arizona Public Service Co	Aug. 14, 1952	202,875	25
19199	Richardson & Bass (La a/c)	Aug. 19, 1952	581,357	25
19200	do	Aug. 15, 1952	807,132	25
19216	New York State Electric & Gas Co	May 6, 1952	631,227	25
19609	Public Service Electric & Gas Co	Mar. 26, 1953	146,900	65
19726	Warren Petroleum Corp	June 27, 1952	174,943	25
19730	Cincinnati Gas & Electric Co	July 16, 1952	136,410	40
19784	Montana Dakota Utilities Co	July 2, 1952	752,927	25
19835	Texas Gas Transmission Corp	July 10, 1952	44,221,226	25
20216	Southern Natural Gas Corp	Sept. 19, 1952	80,266,420	25
20315	Delhi Pipe Line Corp	Aug. 29, 1952	1,293,465	40
20480	Niagara Mohawk Power Corp	July 2, 1952	1,341,960	25
20748	Brooklyn Union Gas Co	Sept. 3, 1952	1,950,000	35
20749	Brooklyn Union Gas Co	Aug. 28, 1952	650,000	35
21891	Michigan Gas & Electric Co	Sept. 19, 1952	227,678	25
21937	Consolidated Gas Utilities Co	Aug. 12, 1952	379,232	35
21938	Lavaca Pipe Line Co	Nov. 12, 1952	345,000	70
21985	Niagara Mohawk Power Co	Sept. 19, 1952	380,600	35
22077	Public Service Electric & Gas Co	Nov. 18, 1952	4,000,000	25
22188	Southern Union Gas Co	Dec. 9, 1952	492,200	25
22193	Wisconsin Natural Gas Co	Nov. 6, 1952	249,000	25
22217	Ohio Valley Oil Corp	Nov. 17, 1952	436,325	26
22373	Southern Georgia Natural Gas Co	Mar. 30, 1953	8,141,518	25
22583	East Ohio Gas Co	Nov. 12, 1952	9,160,970	25
22776	Phillips Natural Gas Co	Dec. 18, 1952	265,505	25
22988	Niagara Mohawk Power Co	Mar. 5, 1953	261,050	25
23012	Pacific Gas & Electric Co	Mar. 5, 1953	13,428,000	25
23013	do	Feb. 18, 1953		
23022	Upham Gas Co	Feb. 25, 1953	611,862	45
23201	Niagara Mohawk Power Co	Mar. 5, 1953	823,600	25
23477	do	Mar. 2, 1953	558,200	25
23879	Scranton-Spring Brook Water, etc	Apr. 24, 1953	500,000	65
24126	Pacific Gas & Electric Co	Mar. 10, 1953	$171,253	25
24478	Public Service Electric & Gas Co	Apr. 23, 1953	5,500,000	25
24512	Pacific Gas & Electric Co	Apr. 17, 1953	25,323,723	25
24623	Public Service Electric & Gas Co	Apr. 13, 1953	4,460,000	25
24690	do	do	600,000	35
24809	Pacific Gas & Electric Co	Apr. 7, 1953	454,100	25
24819	Public Service Electric & Gas Co	Apr. 17, 1953	570,000	35
24958	do	May 25, 1953	750,000	35
25026	Niagara Mohawk Power Corp	May 18, 1953	2,590,630	25
25076	Chattahoochee Natural Gas Co	May 25, 1953	1,464,148	25
25091	Phillips Natural Gas Co	do	876,000	35
25092	Public Service Electric & Gas Co	do	250,000	35
25104	Pacific Gas & Electric Co	July 23, 1953	1,055,890	45
25107	do	July 6, 1953	601,705	25
25229	Public Service Electric Co	July 17, 1953	1,475,000	25
25307	do	July 14, 1953	250,000	35
25310	Delta Power & Gas Co	Aug. 17, 1953	520,600	25
25428	Public Service Electric & Gas Co	July 17, 1953	476,000	25
25504	Niagara Mohawk Power Corp	July 14, 1953	322,300	25
25510	Pacific Gas & Electric Co	July 3, 1953	820,800	25
25511	Pacific Gas & Electric Co	July 14, 1953	132,163	25
25535	Niagara Mohawk Power Corp	July 17, 1953	483,700	25
25597	Public Service Electric & Gas Co	July 28, 1953	330,000	25
25653	do	July 23, 1953	688,500	25
25917	do	Aug. 4, 1953	2,200,000	35
25947	Niagara Mohawk Power Corp	Sept. 13, 1953	850,000	25
25948	do	Oct. 15, 1953	590,000	25
26139	Pacific Gas & Electric Co	Aug. 31, 1953	493,950	45
26369	do	Nov. 24, 1953	612,605	25
26371	do	Nov. 24, 1953	1,233,680	25
26389	South Carolina Natural Gas Co	Oct. 15, 1953	5,734,000	25

Necessity certificates for accelerated tax amortization, gas transmission, distribution, and storage facilities, issued up to and including June 10, 1955—Continued

Tax amortization No.	Name of applicant	Date certified	Total cost of project	Percent certification
26420	Pacific Gas & Electric Co	Mar. 18, 1954	$82,685	25
26561	Skelly Oil Co	Oct. 19, 1953	220,000	25
26988	The Altex Corp	Jan. 26, 1954	142,580	25
27401	Reynolds Sales Co	Mar. 1, 1954	288,000	25
27498	Pacific Gas & Electric Co	Mar. 25, 1954	164,927	25
27732	do	Aug. 18, 1954	287,040	25
28027	do	Aug. 18, 1954	302,940	25
28170	Pecos Growers Gas Co	Aug. 20, 1954	1,787,238	25
28391	Texas Eastern-Penn-Jersey Transportation Co	Mar. 22, 1955	30,755,200	25
28523	Texas Eastern Transmission Corp	Jan. 21, 1955	3,269,000	25
28567	Pacific Gas & Electric Co	Feb. 24, 1955	96,750	25
28581	Witco Oil & Gas Corp	Jan. 4, 1955	67,000	25
28743	Pacific Gas & Electric Co	Feb. 24, 1955	880,281	25
28855	Texas Gas Transmission Co	Apr. 29, 1955	18,139,019	25
28965	Magnolia Petroleum Co	Apr. 25, 1955	645,000	25

Senator CAPEHART. If you will yield a moment.

Have the gas companies used this amortization?

Mr. STEWART. Not to any great extent.

Senator CAPEHART. Why?

Mr. STEWART. It is very hit-or-miss with the gas companies.

Senator CAPEHART. Why don't they use it?

Mr. STEWART. Because for most of the period that the provision has been in effect, the Federal Power Commission refused to permit the gas companies to use the accelerated amortization, without a corresponding cut in their rates or in their rate base. The net result was that the companies preferred not to use it, but as of, I think it was the first of 1953, along in January 1953, I believe, the Power Commission worked out a new set of rules whereby the gas company could take advantage of accelerated tax amortization, but the money so saved had to go into a reserve fund, and be available for later years. Since that time there has been some use of tax amortization by gas companies.

(Supplementary statements in reference to this subject and to the following discussion on tax amortization for gas and electric power facilities appear in Mr. Stewart's letter dated June 15, 1955, to the chairman of the committee.) (See p. 49.)

Representative RAINS. The Federal Power Commission does not make that same regulation on electric power distributors or developers, do they, as they make against the natural gas, who use tax amortization?

Mr. STEWART. I don't know.

Senator CAPEHART. I think it would be well to find out.

Mr. WARREN. Mr. Frye could make the comparison.

Representative RAINS. I remember at the last meeting we had the list of those companies who had used tax amortization in this program for development of electric energy. I did not hear any statement made to that extent.

Is that correct, Mr. Frye?

Mr. FRYE. I didn't hear you, sir.

Representative RAINS. Is it correct that the Federal Power Commission requires a reduction in the rate on any electric power developer who uses a tax amortization in connection with its program?

Mr. FRYE. It is my understanding it is not required.

Senator CAPEHART. Why do they do it in natural gas and don't do it in electric power?

Representative RAINS. It doesn't make sense to me.

Mr. FRYE. I don't know.

The CHAIRMAN. Mr. Frye will be our next witness.

Senator CAPEHART. Why discriminate against gas? It is a very useful thing if you want to make a fire.

Representative RAINS. One other question, Mr. Chairman, and then I am through.

Mr. Liebert, do you think it is essential to the national defense that the Government program should be continued to maintain a minimum production level of the stockpile objectives which you have set?

In other words, I am asking you if you think this act ought to be continued or expanded in any way? That is, the Defense Production Act.

Mr. LIEBERT. Yes, sir, I do. I think it is essential at this time to extend the Defense Production Act.

Senator CAPEHART. It expires on June 30.

Representative RAINS. That is right.

That is all, Mr. Chairman.

The CHAIRMAN. May I ask you this question, Mr. Liebert: How do you determine the level at which the production of materials is to be maintained?

Mr. LIEBERT. Mr. Chairman, that is one—I assume you are relating it to the minerals area?

The CHAIRMAN. Yes.

Mr. LIEBERT. That is one of the basic reasons for which we are creating the Office of Minerals Mobilization, to conduct studies to come up with that determination, based upon all of the factors involved; namely, the economics of the industry, the known reserves within the United States, and all of the other factors.

We will have to go into a composite analysis which would be the basis for recommendations of the Office of Minerals Mobilization for the continuance of the industry at a level necessary to sustain what we call the mobilization base in any particular mineral. That is one of the jobs for which the Office of Minerals Mobilization was created, and we use all of the facilities available and all of the information will go into that study.

The CHAIRMAN. Yes.

Gentlemen, are there any other questions?

Representative RAINS. I believe you told Senator Capehart that you had not taken any action on this delgation which you received from ODM until recently and pointed to a difficulty you were having administratively; is that correct?

Is that your reason for being rather slow in taking these delegations on and getting them developed?

Mr. LIEBERT. I think the specific statement at that time related to getting the Office of Minerals Mobilization started.

Representative RAINS. What is your problem administratively?

Mr. LIEBERT. One thing, sir, is lack of money. No provision was made in the departmental activities for this added function.

Senator CAPEHART. You had the right to borrow from the defense production fund, didn't you?

Mr. LIEBERT. Not for this function. We were advised by Dr. Flemming that for this type of activity we should seek direct appropriation and the Department said because——

Senator CAPEHART. Dr. Flemming delegated you certain authority and then said go and find the money to do it? Is that what it amounts to?

Mr. LIEBERT. It isn't exactly that simple. Part of the job to be done by the Office of Minerals Mobilization comes from the delegation from Dr. Flemming to the Secretary of the Interior, and another part of the job to be done, the responsibility, arises out of the recommendations of the Cabinet Committee's Report on Mineral Policy, in which they recommended that Interior do certain things.

We are trying to put all of these "oughts" and delegations together in one basket, and because some continue and some possibly would not continue if the Defense Production Act were not renewed, then we will have a vehicle that will continue to carry on these jobs which must continue for the national welfare.

Representative RAINS. The staff of the committee advises me the other agencies of the Government use the borrowing power to do the things they were called upon to do under the act? Do you so understand?

Mr. LIEBERT. I understand the GSA have used the borrowing authority to carry on their administrative activities with respect to loans and procurement activities which they got from the Defense Materials Procurement Agency, when it lapsed.

In the same manner, Mr. Mittendorf uses borrowing authority funds for his activities, because they are directly and solely related to the Defense Production Act, and only to that act.

Representative RAINS. What you are saying is if the committees believe that that particular function should be carried on by you, we should make some amendment to the act to provide you with the necessary administrative expenses; is that correct?

Mr. LIEBERT. I am sorry, sir, I didn't follow you. You mean our appropriations act?

Representative RAINS. No. I am talking about in this particular act, in the Defense Production Act, if and when we renew it, that we make provision or authorization in that act that you have the borrowing power to get the necessary administrative expenses which you need to carry out the functions delegated to you.

Mr. LIEBERT. I think in certain respects we have that, as pointed out in the case of Mr. Mittendorf's activities, but in the case of the activities of the Oil and Gas Division, a substantial part of which—but a part only—which are attributable to the Defense Production Act, we don't ask for any money there.

We seek the appropriation route for it.

Representative RAINS. Why is that on one and not on the other functions?

Mr. LEIBERT. I can't answer that question, sir, exactly and specifically as you want it. It is the way in which our budget is formulated within the Department of the Interior.

Representative RAINS. I think we should take that into consideration when we consider the renewal of the act.

That is all, Mr. Chairman. I am sorry to take so much time.

Mr. LEIBERT. We would like to have, sir, if I might follow through with the thought, the borrowing authority available for some of the administrative functions which are directly attributable to the Defense Production Act, but it is hard to separate one from the other in the administration.

Senator CAPEHART. May I ask this question, Mr. Chairman, of the gentleman?

The CHAIRMAN. Go ahead.

Senator CAPEHART. How serious is this deficiency in gas pipeline distribution?

Mr. STEWART. At the present I think it is not very serious. There are 2 or 3 lines which, from a defense standpoint, should be constructed. Some of the companies are either proposing or considering such construction, but I don't think that it is too serious as of the moment.

Representative TALLE. Mr. Chairman.

The CHAIRMAN. Dr. Talle.

Representative TALLE. For the past 15 years we have drawn very heavily upon our metals and minerals. What would you say our estimated inventories are? How much worse are we off because ofthe great uses for war that have been made during the past 15 years? Are the new discoveries keeping pace with our consumption, or are we in a pretty bad way in a number of metals and minerals?

Mr. LEIBERT. My understanding of the problem, sir, is that new discoveries have not kept pace with the rate of our depletion of our domestic reserves in such minerals as lead and zinc, copper, and some other minerals, and that is why, as I said before, I think it is highly imperative that we continue as a permanent part of our activities this intensified exploration, not only for security reasons, but because of our expanding economy.

Representative TALLE. Thank you.

The CHAIRMAN. Mr. Liebert, if you can provide the record with an answer to Mr. Rain's question, we would appreciate it. That is, the last question.

Mr. LIEBERT. That is with respect to why don't we get borrowing authority?

Representative RAINS. Yes, and do you recommend we take care of that in the renewal of the act, if we renew it?

Mr. LIEBERT. Very well.

(The information referred to follows:)

STATEMENT RELATING TO FINANCING OF THE OFFICE OF MINERALS MOBILIZATION, THE OFFICE OF OIL AND GAS, AND THE DEFENSE MINERALS EXPLORATION ADMINISTRATION, DEPARTMENT OF THE INTERIOR

The functions of the Office of Minerals Mobilization and the Office of Oil and Gas are related in part to discharge of responsibilities delegated by the Director of the Office of Defense Mobilization under the Defense Production Act, in part to assignments from the ODM under other statutory authorities pertaining to national defense and preparedness, and in part to the regular work of the Department of the Interior on the same commodities.

At the present stage of development of the Office of Minerals Mobilization, its work is confined largely to functions under delegations from the ODM, whereas the Office of Oil and Gas continues to perform a broader range of coordinating, operating, and advisory functions. In the case of both of these organizations, it should be recognized that although a large share of their staff effort is devoted to work under the Defense Production Act, their role is not limited to discharge

of responsibilities under that act. It should be noted, also, that while the functions of both include the making of recommendations to the ODM with respect to programs involving the use of financial aids and incentives provided by the Defense Production Act, neither of them makes final determinations in such matters or has contracting authority.

On the other hand, the Defense Minerals Exploration Administration was established, pursuant to a delegation of authority to the Secretary of the Interior, to carry on the sole function of expanding the production and supply of strategic and critical metals and mineral by encouraging exploration for them through the making of loans, as authorized for this as well as other purposes by the Defense Production Act of 1950, as amended. That act provided that for the purpose of making loans, the President is authorized to utilize such existing departments, agencies, officials, or corporations of the Government as he may deem appropriate or to create new agencies, and that any agency so created was authorized to borrow from the Treasury of the United States such sums of money as may be necessary, within a prescribed limitation, to carry out its functions with respect to such loans.

The authorities cited in the immediately preceding paragraph provided the basis for the establishment of the Defense Minerals Exploration Administration and for the conduct of its program. The DMEA itself signs contracts with the operators participating in the program. Since this agency was established solely for the purpose of carrying on the defense minerals exploration program, the expenses of providing administrative and technical services in connection with that program are financed from the borrowing authority provided in the Defense Production Act.

The particular type of exploration program conducted by DMEA was wholly new to the Department of the Interior when it was instituted. There was no counterpart, either in function or financing, in the regular activities of the Department. Neither at the outset of the DMEA program nor at the present time is there any statutory or fiscal authority, other than the Defense Production Act, for continuation of such a program.

The differences in the character and range of functions performed by the Office of Minerals Mobilization and the Office of Oil and Gas, as compared with the Defense Minerals Exploration Administration, have been indicated above. It has been the policy of the Department of the Interior to request direct appropriations from the Congress, through the Bureau of the Budget, to carry out the functions of organizational units, such as the Office of Minerals Mobilization and the Office of Oil and Gas, whose work involves both delegated responsibilities under the Defense Production Act and responsibilities which are the normal, continuing functions of the Department in the same areas, including certain longer range preparedness planning functions.

The financing of the Office of Minerals Mobilization and the Office of Oil and Gas through direct congressional appropriations is in line with the policy expressed by the Office of Defense Mobilization that the individual agencies responsible for carrying out mobilization assignments in conjunction with their regular programs are in a better position than the Office of Defense Mobilization to estimate the cost of their activities and, therefore, should justify these costs to the Appropriations Committees and obtain their own appropriations.

It is recommended that the present procedure of financing the Office of Minerals Mobilization and the Office of Oil and Gas from direct congressional appropriations, and of financing the expenses of administering the Defense Minerals Exploration Administration's program from the borrowing authority provided by the Defense Production Act, be continued.

The CHAIRMAN. I think it important that you have money some way.

Mr. LIEBERT. It would help, sir.

The CHAIRMAN. I think you have made an excellent statement, and I am sure all the members join me in paying you that compliment.

Mr. LIEBERT. Thank you, Mr. Chairman.

The CHAIRMAN. We are very glad to have you.

Our next witness, I believe, is Mr. Frye.

Senator CAPEHART. Mr. Chairman, I have an appointment at 4 o'clock in my office.

The CHAIRMAN. I am sorry you have to leave.

Senator CAPEHART. I am, too. I enjoy your company and the inspiration one gets from the wisdom of this room here.

The CHAIRMAN. All right, Senator. I am very glad you could come.

Mr. Frye, I believe you have a written statement?

Mr. FRYE. Yes, I do, sir.

The CHAIRMAN. All right. You may proceed.

STATEMENT OF EDWARD D. FRYE, SPECIAL ASSISTANT TO THE ASSISTANT SECRETARY, WATER AND POWER DEVELOPMENT; ACCOMPANIED BY GEORGE H. ENGLISH, STAFF OF ASSISTANT SECRETARY, WATER AND POWER DEVELOPMENT; GARDNER C. GEORGE, STAFF OF ASSISTANT SECRETARY, WATER AND POWER DEVELOPMENT; ARTHUR B. VIEREGG, POWER ADVISER, TECHNICAL REVIEW STAFF, OFFICE OF THE SECRETARY, INTERIOR DEPARTMENT

Mr. FRYE. Mr. Chairman and members of the committee. As Mr. Liebert mentioned in his statement, the responsibilities in the field of electric power delegated to the Department of the Interior by the Office of Defense Mobilization have been assigned to the Assistant Secretary—Water and Power Development. These reponsibilities were originally carried out by the Defense Electric Power Administration which was abolished June 30, 1953.

The functions now carried on include assembling and evaluating data as to the production capacity of electric utilities and supplying of electric power under mobilization conditions; serving as an allotting agency for materials for construction of facilities to provide electric power to Atomic Energy Commission installations; making recommendations to the Office of Defense Mobilization on requests for accelerated tax amortization for electric power facilities under expansion goals established by the Office of Defense Mobilization, and conducting special studies in relation to power in response to specific requests from the ODM.

This defense electric work is handled for the most part by three full-time employees. When the workload rises sharply, as it has occasionally over the past 2 years, we are fortunate in being able to call on the Department's Technical Review Staff for assistance.

In addition, industry consultants have been called upon to assist us in carrying out our assigned responsibilities. We have used consultants mainly to work on special studies requiring specialized knowledge and experience. This permits the regular employment of a small staff but provides expert advice in power matters in each area of the country.

The estimated 1955 year-end national capability, under average water conditions, of Class I utility systems is expected to be 116 million kilowatts. As of this date the present picture shows that 8.2 million kilowatts are scheduled for 1956; 7 million for 1957 and 8.3 million for 1958. This makes a total of 139,500,000 kilowatts for the year ending 1958 for the entire United States.

It can, we believe, be safely assumed that the anticipated scheduled installations for 1956 will be very close to the figure given above as the long lead time required for the planning, manufacturing, and

constructing of additional units will prevent further additions and construction schedules are now considered firm, thus assuring a minimum of slippage. However, we anticipate that additional blocks of capacity are still on the planning boards of various utilities to be scheduled for service during the years 1957 and 1958. This additional capacity will add to the above figures but has not been included inasmuch as it is still in the planning stage.

The Office of the Assistant Secretary—Water and Power Development—is also the alloting agency for Atomic Energy related projects, familiarly known as E–5 rated projects. This program provides allotments and priority assistance on materials and equipment for construction of facilities to furnish interim, firm and back-up power to Atomic Energy Commission installations. It consists of 52 projects, containing 89 units with nameplate ratings totaling 10,721,000 kilowatts. These were designated as essential to supply power to Atomic Energy installations. Allotments of steel, copper, and aluminum on quarterly bases are issued as required for each project. Assistance is given through expediting shipments of materials and scheduling deliveries of equipment.

Since the program started in 1953, a total of 7,032,000 kilowatts have been placed in service. The program is presently 1,330,000 kilowatts behind the original schedule which was set up in November 1952. However, under present planning the program will be back on schedule by the end of the third quarter of this year, and will be completed by June 1956 with total installation of 10,721,000 kilowatts. The delay in the program was due principally to slippages in some turbine deliveries as reported to your committee in our report of September 22, 1954.

Several nongovernmental groups are planning on nuclear generating stations using uranium as fuel. One 60,000-kilovolt plant has already been licensed by the Atomic Energy Commission and is presently under construction. Five others have applications pending before the Commission. The combined capacity of the 6 plants is approximately 765,000 kilowatts.

This capacity is not included in the scheduled capacity mentioned previously as again, the scheduled operating dates are relatively uncertain.

On December 3, 1953, the Office of Defense Mobilization by its order VII–6 temporarily placed the electric-power goal on the suspended list.

On July 29, 1954, the Acting Secretary of the Interior recommended to the Office of Defense Mobilization that the goal be closed, with certain minor exceptions. This recommendation was made in response to a request by ODM for a reexamination of the power situation. This reexamination was made by employees of Interior and FPC and indicated that for the period 1955 through 1957 nationwide capacity, installed or planned, would exceed the estimated peak load as follows:

	Percent
1955 median margin as percent of peak load	20. 6
Adverse margin	18. 6
1956 median	18. 1
Adverse	16. 2
1957 median	16. 7
Adverse	14. 9

Under the then-assumed circumstances of partial mobilization it was considered that this margin was sufficient to meet the needs in all regions with the possible exception of the Pacific Northwest.

Present estimates now indicate that the reserve capacity, assuming the same conditions and circumstances as above, will be in the neighborhood of 20 percent which is considered more than adequate under peacetime conditions.

However, during conferences in March and early April of this year between officials of ODM and Interior, agreement was reached that planning should be premised on—not partial—but full mobilization which would then be in accord with other defense-planning agencies.

Accordingly, on April 15, ODM by its order VII–6, amendment II, transferred goal 55—electric power—from the suspended to the open goal. This amendment also enlarged and extended the goal to 150 million kilowatts by the end of 1958. This represents an increase of approximately 34 million kilowatts over the expected capacity additions planned to be installed by the end of this year.

Through March 31, 1955, under the original goal, applications for certificates of necessity for rapid tax amortization have been received for 939 electric utility projects and 45 industrial powerplants. Of these, 716 utility plants and 42 industrial powerplants were recommended for approval. The certificates of necessity issued by ODM are related to an increase in the Nation's electric power capacity of 20,128,655 kilowatts from electric utility systems and 823,150 kilowatts from industrial powerplants.

An approximate breakdown of the increase during this period of installed capacity shows that approximately 11 million kilowatts were Federal, municipal, and cooperative installations receiving no tax amortizations. Of the remaining 30 million kilowatts installed by privately owned utilities, 20 million kilowatts of installed capacity were covered by tax amortization and 10 million were installed without receiving certificates.

Expansion goal No. 225 for power facilities for military, atomic energy, and defense-related needs was established by Defense Mobilization Order VII–6, amendment 9, dated March 17, 1955. This goal covers the following facilities for which there is an existing or prospective shortage to supply power required by the military services, Atomic Energy Commission, or a defense-related industry:

(*a*) Interconnections between power generating facilities.

(*b*) Transmission lines between a generating facility and the point of consumption required by a military service, Atomic Energy Commission, or defense-related industries.

This goal was established primarily to clear up the backlog of defense-related transmission projects which accumulated while goal 55 was on the suspended list.

Under the amended goal, 56 applications for tax amortization have been received. These are broken down into two categories: (1) New applications and (2) reconsideration of previous denials. Of these 32 have been returned to ODM with recommendations for approval and 3 have been recommended for denial.

The 56 applications comprised a total of 4,913,000 kilowatts. Of the 32 recommended for approval, 18 included generation amounting to 3,379,250 kilowatts.

Reports previously made to this committee have indicated that the Pacific Northwest is the only area where reserves now built or under construction may prove eventually to be inadequate.

Generating capacity presently installed there plus installations under construction, providing present schedules are maintained, will provide adequate firm power to meet requirements for the area until 1960 or 1961. So there is no immediate problem. However, it is important that Federal installations including McNary, Chief Joseph, and The Dalles be maintained on schedule. Non-Federal installations, including 90,000 kilowatts additional at Ross by the city of Seattle, and the Noxon Rapids project of the Washington Water & Power Co. are also necessary.

I am sure that this committee is fully aware of the recurring power supply problems of the Pacific Northwest that have existed for most of the past decade. This problem is receiving continuing attention by the Department of the Interior and although it would be premature to state that a solution to the problem is imminent, there are indications that a solution will be found before any shortage actually develops. In this connection your attention should be directed to the fact that there are proposals in Congress and before the Federal Power Commission more than adequate to meet all needs and if acted upon will provide an adequate supply.

In the Southeast here is a potential local shortage should adverse water conditions occur; however, this shortage can be alleviated by the import of power into the area as has been done in past years.

I will not go into details of the large amount of time and effort during the past year that has gone into planning for the continuity of essential functions in the event of full mobilization and in preparation for power's participation in the forthcoming Operation Alert inasmuch as Mr. Liebert has already outlined that in his statement.

Mr. George and Mr. English of Secretary Aandahl's staff and Mr. Vieregg of the technical review staff are here with me today and we should be pleased to try to answer any questions.

The CHAIRMAN. I have a report from the Federal Power Commission up to March 31, 1955. Region 3, Southeast, shows in 1958 the reserve will only be 2.2 percent. I don't understand that from your statement. Region 7, Northwest—it will be minus 2 percent in 1958.

Mr. FRYE. Mr. Brown, is that under median water year conditions or critical water year conditions?

The CHAIRMAN. I don't know. The staff got this information for us.

Mr. FRYE. I think the Federal Power Commission report, if I am not mistaken, please correct me Mr. English, if I am wrong, shows adverse water conditions as a general rule.

Mr. ENGLISH. Their reports are all based on adverse water conditions.

There is coming into being this year in the TVA area about 3 million kilowatts of new generating capacity, which will relieve the situation that developed last year, during the low-water period, and it has to be assumed that that condition will not arise again, because that 3 million is practically all steam coming into being where a dry year will not affect it.

The CHAIRMAN. I think that will and should be taken into consideration. This report gives the indicated reserve for 1955 through 1958.

I think I should insert this in the record. "Electric Power Reserves from 1955 through 1958, as reported by the Federal Power Commission on March 31, 1955."

(The information referred to follows:)

Electric power reserves from 1955 through 1958, as reported by the Federal Power Commission on Mar. 31, 1955

[Percent]

Location	Indicated reserve December 1955	Indicated reserve December 1956	Indicated reserve December 1957	Indicated reserve December 1958
Region I	15.3	13.1	12.2	10.7
Region II	15.6	17.8	14.7	9.0
Region III	14.1	14.4	9.9	2.2
Region IV	20.8	19.6	17.7	13.5
Region V	51.8	52.0	46.3	38.0
Region VI	29.0	23.7	26.8	18.2
Region VII	2.5	.2	−2.0	−2.0
Region VIII	24.8	22.1	1.87	13.4
National total	18.8	18.2	15.4	10.6

The CHAIRMAN. Dr. Talle, are there any questions?

Representative TALLE. Mr. Chairman, yes. I would like to ask a question.

Mr. FRYE. Could we say something further in regard to the Southeast situation?

Representative TALLE. Quite all right.

Mr. FRYE. Mr. Vieregg.

Mr. VIEREGG. Mr. Chairman, with reference to the statement Mr. Frye just made; I want to explain a little bit further the difference between the Federal Power Commission figures you have and the statement Mr. Frye read.

Mr. Frye stated:

> In the Southeast there is a potential local shortage, should adverse water conditions occur; however, this shortage can be alleviated by the import of power into the area * * *

The CHAIRMAN. By what?

Mr. VIEREGG. By the import of power into the area, as has been done in past years. During Korea, quite extensive imports were required in order to meet the increasing loads at Oak Ridge in particular. That power came in from the American Gas & Electric Co. system in region II to the north. It came in from the West and from the South, including the Midsouth group and the Southwest power pool.

Representative TALLE. Then you do import from region to region?

Mr. VIEREGG. Yes, sir.

Representative TALLE. Is there a considerable loss?

Mr. VIEREGG. There are very good transmission ties in that area. I think that reconciles these differences.

The CHAIRMAN. It doesn't reconcile it for me. I think the FPC figures reveal an indicated reserve of 2.2 percent in December 1958 for the Southeast. I want to ask this question: Can our needs be measured in terms of electric power available nationally or are our needs to be measured in terms of electric power available within each region?

Mr. VIEREGG. I would answer, Mr. Chairman, that electric utility operations in many areas of the country are today on a pool basis and frequently there is an interchange of power.

During certain months of the year, the Tennessee Valley Authority, which is to a great extent hydroelectric power—during periods when there is adequate stream flows and the reservoirs are full, they export power, but during the same year, during certain months of the year, when stream flows are down, they may be importing power, and that has been going on for years.

The CHAIRMAN. Of course, you have a large line loss there. You lose a lot of power.

Let me ask you this question: What would be the needs if we had all-out war for electricity? Can you estimate how much more we would need?

Mr. FRYE. We don't know.

The CHAIRMAN. That is the reason I think it is a very important question. We don't have enough now for our needs at the present time. We don't have enough reserves. If we had all-out war, we certainly would need a great deal more electric power. There is no way you can figure that?

Mr. FRYE. We don't have an answer to your question at this time, sir, because we do not have the necessary data and information.

The CHAIRMAN. Is Mr. McLaughlin here?

TESTIMONY OF J. WARREN McLAUGHLIN, CHIEF, ELECTRICAL EQUIPMENT AND SYSTEMS BRANCH, OFFICE OF ASSISTANT SECRETARY OF DEFENSE—PROPERTIES AND INSTALLATIONS, DEFENSE DEPARTMENT

Mr. MCLAUGHLIN. Yes, sir.

The CHAIRMAN. Can you answer that, Mr. McLaughlin?

Mr. MCLAUGHLIN. I didn't hear you, sir. You speak in a rather low tone of voice.

The CHAIRMAN. Can you estimate what the needs would be if we had all-out war for a couple of years, as to electricity?

Mr. MCLAUGHLIN. I could, sir, but when I was with ODM, we asked the Department of the Interior to make those estimates and they demurred.

Mr. FRYE. Could I insert right here, Mr. Chairman——

The CHAIRMAN. That is the reason I asked him to come. I knew he knew something about this subject.

Mr. VIEREGG. If I may, Mr. McLaughlin is referring to something that happened during Korea days. The Defense Electric Power Administration requested from the military services, from the Atomic Energy Commission, from the large industries, such as the chemical industry and the light metals industry, what their requirements would be in the event of all-out war, rather than a limited war, such as Korea, and we received from time to time their best estimates, which are never firm, because the Defense Department replies they don't know who the enemy might be, when the attack might occur, where it would occur, and what would be required of them under those conditions.

The CHAIRMAN. Well, I don't think that is a sufficient answer.

Mr. VIEREGG. Well, sir, it is difficult.

Mr. FRYE. May I add a little more to it, sir?

The CHAIRMAN. Yes.

Mr. FRYE. After the Office of Defense Mobilization requested us to make a study, we asked them to make available to us certain assumptions, what are the military requirements; would they give us an estimate of such requirements?

Without these military requirements which, in my opinion, would be one of the major factors, we are unable to go any place. To date we do not have them.

The CHAIRMAN. Can't you get it estimated from any agency at all?

Mr. FRYE. We don't feel that in Interior we are competent to estimate the military requirements.

The CHAIRMAN. That is a frank answer. That is the reason I asked Mr. McLaughlin to attend. He is with the Department of Defense.

Mr. VIEREGG. Mr. Chairman, I would like to add this: The reserve margins that are reflected in the statement Mr. Frye has made have been considered by the executive branch of the Government. The National Security Resources Board, including industry consultants, have reviewed from time to time the margins required.

The CHAIRMAN. By whom?

Mr. VIEREGG. Industry consultants that were called in on the National Security Resources Board, back in 1948, until the Korea affair.

They considered an approximate average reserve of 15 percent to be normally adequate. Now these figures that Mr. Frye has given allow for the rapid expansion of load.

The CHAIRMAN. Allow what?

Mr. VIEREGG. For the rapid expansion of load and the ability of the utilities in the country to service that load.

The CHAIRMAN. All right, Mr. McLaughlin?

Mr. MCLAUGHLIN. Mr. Chairman, let me say, first, that our differences, as was remarked about, are those of brothers. We are not quarreling, sir, but we do have differences of opinion. Now, the amount of 15 percent would be considered adequate for peacetime operation. The figures which Mr. Frye quotes here are national figures, which are of no great importance in the electric power industry, because, if you are short of power in the Pacific Northwest, you can't get any help from New England, or vice versa. Each area has to be considered on its own basis, and these Federal Power Commission figures, which I believe your staff has had recently, show that even in peacetime, right now, we are going to be seriously short in the Pacific Northwest, and what is worse from your standpoint, we will be short down in your area.

The CHAIRMAN. Well, that is what I know. That is why I want to get it up. Go ahead.

Mr. MCLAUGHLIN. In the rest of the areas, we would regard the power supply as good and sufficient if it keeps increasing, but as to what would be required in war, I wouldn't want to make an estimate alone, but I would much prefer to have an estimate made in combination of Government and industry, and that was what we in ODM at that time wanted Interior to do, and I have discussed it with all these gentlemen on various occasions.

Up until the time that I left there—up until the time I left ODM, a year ago, to go over to the Department of Defense, where I am now, we had gotten to the point where, as I believe Mr. Vieregg said, or maybe Mr. Frye, that they asked—that Interior asked ODM for certain assumptions on which to base a study.

It was at that point—I mean it took us a year to get to that point, but that is the point at which we were when I went back from ODM to the Department of Defense.

The CHAIRMAN. Did the National Security Council request that a study be made to determine the electric power requirements for war?

Mr. MCLAUGHLIN. Yes, sir. Dr. William Elliott, ODM's representative on the National Security Council, asked me to do that.

The CHAIRMAN. Has that been made?

Mr. MCLAUGHLIN. No, sir.

The CHAIRMAN. Why hasn't it been made?

Mr. MCLAUGHLIN. ODM has delegated its power responsibilities to the Department of the Interior.

The CHAIRMAN. They have not made it?

Mr. MCLAUGHLIN. Not to my knowledge, sir.

The CHAIRMAN. Why haven't you gentlemen made it?

Mr. FRYE. Mr. Chairman, we have to, I think, go back to the same answer we gave you just a few moments ago, and that is lack of information.

The CHAIRMAN. Well——

Mr. FRYE. After many conferences——

The CHAIRMAN. Pardon me. Lack of information—can you get the information?

Mr. FRYE. We have asked for it. I have here a letter that is addressed to Dr. Flemming, Director of the ODM, dated May 13, 1954.

The CHAIRMAN. What is the objection to giving us that information?

Mr. FRYE. That would be trying to tell the other departments their business.

The CHAIRMAN. Could you make that estimate for us?

Mr. MCLAUGHLIN. I could; yes, sir.

The CHAIRMAN. Will you do it?

Mr. MCLAUGHLIN. In the Department of Defense I have no staff for doing that, I am a consultant. I can make you a one-man study, but I don't think I would want to present that to Congress. I think such a study should be prepared by industry and the Government operating together.

The CHAIRMAN. I have great confidence in you. I don't want to embarrass you. If you don't want to do it, all right. It will only be put in the hearing.

Mr. MCLAUGHLIN. I would be glad to give you one, sir, and I will.

The CHAIRMAN. All right, sir. Glad to have it.

(The information referred to follows:)

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE,
PROPERTIES AND INSTALLATIONS,
Washington 25, D. C., June 29, 1955.

Hon. PAUL BROWN,
Chairman, Joint Committee on Defense Production,
House of Representatives.

DEAR MR. BROWN: In the course of your committee's hearing on June 9, you requested estimates of electric power and energy which would be required by

the country in time of war. The figures given below are based on specific assumptions which are listed on a separate sheet.

Following are the loads which I estimate should be planned for in case of war and the corresponding amount of generating capacity necessary to meet them.

Loads to be planned for

	Year end peak load in millions	Capacity necessary to serve peak load of kilowatts	Yearly output in billions of kilowatt-hours
1955	98	112	530
1956	104	116	575
1957	116	127	650
1958	123	135	700

A graph to accompany these figures will be furnished to you within the next few days.

These figures given above include the output of all electric utilities but do not include industrially owned and operated electric-generating plants. At the end of 1954 captive generating plants operated by industrial plants, railroads, mines, etc. had generating capacity of approximately 16 million kilowatts and generated, during that year, almost 73 billion kilowatt-hours.

While a reserve and operating margin of approximately 15 percent is considered to be adequate in peacetime, it can be reduced somewhat during hostilities and the above estimates include a 10-percent margin by the end of the fourth year of war. This reduction in reserve margin would result in a saving of several million kilowatts of generating capacity.

The figures given above do not make any allowance for damage by bombing, sabotage, etc. as such figure is extremely hard to estimate and, in order to be of service, would necessarily have to be applied to certain sections of the country.

The loads have been estimated in a comparatively short time and without the benefit of months of study which is usually given to preparation of similar figures. However, I believe they will serve your purpose at this time.

Sincerely,

J. WARREN MCLAUGHLIN,
Chief, Electrical Equipment and Systems Pranch.

Mr. FRYE. Could I put in the record a paragraph from a letter we wrote Dr. Flemming in regard to this particular situation? It is a letter signed by Ralph A. Tudor, Acting Secretary of the Interior, and addressed to Dr. Flemming:

With respect to electric-power facilities, this Department reviewed the Defense Electric Power Administration's report, FM–1, dated May 25, 1953, in January of this year. At the time of this study there had been no significant upward shift in production goals for general commodities and munitions. Since that time we have discussed this matter with Messrs. Offutt and McLaughlin of your Office, and they agreed to provide this Department with revised basic assumptions. It will be necessary to have an estimate of energy requirements by location, for production of the several categories of military equipment and munitions, and for defense supporting industries, if these vary from our basic assumptions of January 1954. Any instructions recently provided by the National Security Council would also be helpful.

The CHAIRMAN. What date was that?

Mr. FRYE. May 13, 1954.

To date we have no answer to this letter.

The CHAIRMAN. What date was it?

Mr. FRYE. May 13, 1954.

The CHAIRMAN. That matter may be inserted in the record. You want that in the record; do you?

Mr. FRYE. I will put the whole letter in, if you like.

The CHAIRMAN. Did you read all the letter?

Mr. FRYE. No. There are several more paragraphs.

The CHAIRMAN. About the same subject matter?

Mr. FRYE. Yes, sir. There is one more paragraph relating to electric power and the other paragraphs refer to gas and oil.

The CHAIRMAN. I think you can put the whole letter in, if you want to.

You didn't get any reply about electric power nor about gas and oil from that letter; is that right?

Mr. FRYE. I didn't understand you, sir.

The CHAIRMAN. You said you didn't get any reply from that letter; is that right, sir?

Mr. FRYE. That is correct, sir.

The CHAIRMAN. They didn't reply to either electric power or gas and oil?

Mr. FRYE. I don't know about gas and oil.

The CHAIRMAN. You don't want to put that in, then?

Mr. FRYE. That is why I only quoted the one paragraph.

The CHAIRMAN. Do you want the whole letter in, or not?

Mr. FRYE. I would like to have that particular paragraph in, sir.

The CHAIRMAN. All right, sir.

You had no reply to that?

Mr. FRYE. That is right.

The CHAIRMAN. Dr. Talle?

Representative TALLE. Mr. Chairman, I wanted to ask whether there is any adequate substitute for electric power? I gather from what you said on page 4 that there isn't?

Mr. FRYE. We don't believe so, sir.

Representative TALLE. My next question has to do with what we have talked about here, whether an up-to-date study has been made as to needs; and I gather the answer is "No"?

Mr. FRYE. That is correct.

Representative TALLE. Third question, how about tax amortization? Are you satisfied that it is good incentive?

Mr. FRYE. We believe it is, sir.

Representative TALLE. I gather so from your statement.

At a previous hearing it was pointed out that aluminum expansion is proceeding, and that there may be considerable expansion this year. What source of power is used for that expansion?

Mr. FRYE. I think it will depend on the location of the plant.

Representative TALLE. Chances are it would be electric power?

Mr. FRYE. It would be electric power. I was thinking of whether you meant steam or hydro. It would be electric power.

Representative TALLE. So there is an added demand that is imminent.

My next question: To what extent does American industry depend upon Canadian electric power?

Mr. FRYE. Could I——

Mr. ENGLISH. The percentage is so small that it would hardly be calculated.

Representative TALLE. Would that be a potential source in emergency?

Mr. ENGLISH. At the present time, I would say "No."

Mr. GEORGE. You might go from Canada over the Niagara River plant in Canada that is built. You might get some over from that, quite a good chunk.

Representative TALLE. It would be helpful to New England, don't you think?

Mr. GEORGE. It could.

Mr. VIEREGG. Sir, I am not sure I understood the full implication of your question. You meant to what extent is electric power service in Canada used by American business in this country, or in this country and Canada?

Representative TALLE. No. I had in mind to what extent——

Mr. VIEREGG. The imports?

Representative TALLE. The imports; that is correct, and your answer was negligible?

Mr. ENGLISH. It would be less than 1 percent.

Representative TALLE. I probably shouldn't bring up this sore point again, but can you give us something of a promise that we will get some information about what we would need in war time?

Mr. FRYE. I can't give you a promise, sir.

Representative TALLE. Can you offer some hope to the committee?

Mr. FRYE. I hope we will be able to get the information we requested so we can make the study.

Representative TALLE. It is not an impossible thing; is it?

Mr. FRYE. I beg pardon, sir?

Representative TALLE. It is not something impossible?

Mr. FRYE. No, sir.

Mr. Vieregg would like to add to this, sir.

Mr. VIEREGG. I would like to supplement that.

Beginning in 1946, I was employed by the Bureau of the Budget, and in addition to being responsible for the Federal programs I was also associated with the work of the National Security Resources Board from that time until I transferred to the Defense Electric Power Administration.

The question with regard to what the electric power demands would be for years in advance of the time that you start planning under normal peacetime conditions, under partial mobilization, or under all-out war conditions, has been a subject of continuing study by many of the departments of the Government.

In order to get at requirements that may be needed at some future date certain assumptions have to be made, and those assumptions have to be obtained from the responsible agencies of government that are large users of electric power. That is what makes this difficult.

Representative TALLE. I wondered, too, whether you have enough people working on the problem.

Mr. VIEREGG. I don't think it is a question of manpower. It is a question of judgment as to what the demand might be. In other words, if Congress authorizes a certain program for the Air Force, it is possible to estimate what the aluminum requirements would be, based on the schedule of production of airplanes for that particular purpose. As this program may be delayed or advanced, adjustments have to be made, and that is only for one particular use of a particular commodity. When you multiply that by ordnance, chemicals, other uses of aluminum, other minerals, it makes it quite difficult.

Representative TALLE. I can understand that.

Thank you, Mr. Chairman.

The CHAIRMAN. Yes.

We are storing critical materials, now, for war purposes.

Mr. VIEREGG. Yes, sir.

The CHAIRMAN. You can't store electricity?

Mr. VIEREGG. That is correct.

The CHAIRMAN. You don't know whether you have enough critical materials but you do undertake to determine it. I can't understand why somebody can't make some kind of an estimate on electric power. You may miss it. You certainly know if we have all-out war now we don't have enough electric power; is that right?

Mr. VIEREGG. Sir, I couldn't agree to that statement; no, sir.

The CHAIRMAN. You are by yourself. You are a man who has studied electric power. You mean to tell this committee we do have enough electric power today if we have all-out war?

Mr. VIEREGG. That would depend a lot on the duration of the war and how the war is carried on, sir.

The CHAIRMAN. Suppose we had a war for 12 months. You certainly don't want that statement in the record, do you?

Mr. VIEREGG. Sir, from the standpoint of the national security, in the event of all-out war, the margin of reserves in being, plus what is scheduled to come in, would in my opinion carry all essential loads during the first 12 months of a war.

The CHAIRMAN. That is certainly not borne out by past history in a war, and I can't understand why you would make that statement. I believe you are honest about it.

Mr. VIEREGG. Sir, I am trying to give you the benefit of the studies I have made.

The CHAIRMAN. Since you have done that it looks like you should be able to answer my question, about giving a little more information for the record. I just don't think you have enough help down there in your department to study electric power.

Do you have a sufficient force down there?

Mr. VIEREGG. You will have to ask Mr. Frye to answer that question.

Mr. FRYE. The force working on electric power, sir?

The CHAIRMAN. Yes.

Mr. FRYE. We believe we have an adequate force.

Representative TALLE. May I ask one question?

The CHAIRMAN. Yes.

Representative TALLE. When you use the term "essential uses," you do take into account civilian uses, too; don't you?

Mr. VIEREGG. Yes, but with this——

Representative TALLE. Ordinary uses?

Mr. VIEREGG. I would like to modify that to this extent: As I visualize it, under conditions of all-out war, including attack on this country, the civilian population is going to be subject to a good many inconveniences, there is going to be relocation of a good many people. For example, employees that are now working on perhaps automobiles may be shifted to aircraft factories, or other types of employment, and it may be that in some areas it would be necessary to restrict some of the luxury uses of electricity, to meet essential requirements.

The CHAIRMAN. I believe you just stated that we need in peacetime a 15-percent reserve; is that right?

Mr. VIEREGG. No, sir.

The CHAIRMAN. One of you gentlemen said that.

Mr. VIEREGG. Mr. McLaughlin said 15 percent, I believe, Mr. Chairman. We do need 15 percent in some areas, and in some areas we may require over 30 percent, whereas other operating pools can operate just as satisfactorily with less than 15 percent.

The CHAIRMAN. All right. You don't have an average now of 15 percent—certainly not 20 percent if we had an all-out war. Then we wouldn't need any more reserves?

Mr. VIEREGG. During the first 12 months, Mr. Chairman, there would be a time lag required for retooling, for a shift from manufacturing automobiles to aircraft, and during that period it is unlikely that the total maximum power demand would substantially increase overloads under peacetime conditions. They might even be less.

The CHAIRMAN. You are making a statement that in war we won't need any more electric power than we do in peace?

Mr. VIEREGG. I was referring to peak demand during a specific period, during the first 12 months. The energy requirements, that is the kilowatt-hours, might increase, and that also has to be taken into account.

The CHAIRMAN. Suppose we had war then of a duration of 2 years.

Mr. VIEREGG. Certainly we would have to have additional power if it lasted for 2 years, sir.

The CHAIRMAN. I thought so. A lot of utilities might be bombed. You would need much more.

Mr. McLaughlin, let me hear from you on that.

Mr. MCLAUGHLIN. My theme song has been for a long time that we need facts. Now, we can't have too many of them. When ODM appointed an electric power advisory committee in the fall of 1951 to survey the electric power situation and make estimates of what might be required, we called on what we thought were the best counsel in the country, including these gentlemen sitting here. Mr. Frye wasn't with Interior at that time. They had a staff. These gentlemen were with Defense Electric Power Administration, and our electric power advisory committee used the whole DEPA as a staff. DEPA went out and consulted everybody in the industry. They held 22 meetings around the country and spent thousands and thousands of man-hours on the job. When the electric power advisory committee brought in those results to Mr. Fleischman, I think as nearly as human beings could do it, their answers were the products of men who know electric industry best.

All those people, including DEPA, myself, and all the best brains in the country we could call on in industry and government, estimated that in 1952, the increase, going into service, would be slightly in excess of 9,300,000 kilowatts. It turned out to be 6.7 million, an error of 33⅓ percent.

In the next year, the record was a little better. The estimate was 11 million and 9.2 million went into service. That is an error of about 25 percent. Finally, in 1953, we came awfully close to it, and the estimate was 10,680,000, and actually we got into service 11.2 million, but the only point I want to make is that with all the good advice we could get it wasn't good enough.

What we need is facts as nearly as we can establish them. That is why I want a power study for war.

The CHAIRMAN. You certainly do not think we have enough electric power if we had all-out war?

Mr. McLAUGHLIN. No, sir. I would like to qualify my friend, Mr. Vieregg's statement a minute ago, that he said that it might be possible that in the transition period from peace to war that there might be a lesser demand for electricity for power than normal. Well, Mr. Chairman, my experience doesn't bear that out. I have been in every one of these electric-power-in-war studies since 1938, and there is nothing—at no time in any record when war broke out has the demand for power decreased, at least a little bit. You look at the record for 1950 and the electric power increase took off like a skyrocket in June when the Korean invasion began. The slope of that curve from June to December of 1950 was very steep. Our transition from peace to war this time will be much faster, that is because of all the work that has been done in advance; our transition from peace to war would be much easier than it was in Korea, and than it was in World War II.

I can't buy that theory. I know Mr. Vieregg is not alone in putting that thought forward. I have heard it for a long time, but my opinion is quite different.

The CHAIRMAN. When was the last power study made?

Mr. McLAUGHLIN. The last electric-power study for war purposes was in 1945. It ended as the war effort decreased. It ended just about the time of the surrender of Germany. I think it was April. There has been no electric-power study for war purposes made since that time. We have made some studies, those Mr. Vieregg described, in the Korean emergency, but we were carrying water on both shoulders then. We were not, as you know, conducting an all-out war. That is what I want, is a study for all-out war purposes. We want to remove as far as possible all of the guesswork that we can.

The CHAIRMAN. Any other questions, Dr. Talle?

Representarive TALLE. No, thank you.

The CHAIRMAN. Anything else, gentlemen, that you desire to say?

Mr. FRYE. I don't think there is anything, sir.

The CHAIRMAN. We appreciate your giving us your testimony very much, sir.

Mr. FRYE. We appreciate the opportunity of coming here, sir.

The CHAIRMAN. Is there any other witness?

Mr. WARREN. No, sir. I believe that is all.

The CHAIRMAN. All right, gentlemen, we are very glad to have had all of you.

(Whereupon, at 4:35 p. m., the committee recessed to reconvene at the call of the chair.)

APPENDIX

On June 17, 1955, Mr. Frank E. Johnson, Acting Administrator of the Defense Minerals Exploration Administration, submitted to the committee staff the following information on royalty repayments to DMEA and the financial status of DMEA operations as of March 31, 1955:

Royalty Repayments to DMEA

Royalty repayments are made to the Government by operators from the sale of any ores produced during exploration or from ores produced after certification of a discovery or development is made to the operators by DMEA. All royalty repayments are forwarded to the executive officer of DMEA in the particular region in which the project is located. These funds are deposited with the Treasury Disbursing Officer in the region to the account of DMEA revolving fund.

As of March 31, 1955, a total of $827,061.84 had been repaid by operators to the Government. The following is a breakdown of repayments:

Repayments as of June 30, 1954	$323, 856. 00
Repayments, July 1954–September 1954	105, 509. 00
Repayments, October 1954–December 1954	246, 578. 09
Repayments, January 1955–March 1955	151, 118. 75
Total repayments as of March 31, 1955	827, 061. 84

Financial status of DMEA

Allocation of borrowing authority	$28, 000, 000
Certified (gross transactions or net obligations)	22, 735, 000
Balance available for certification	5, 265, 000
Cash drawn from Treasury	17, 000, 000
Disbursements	15, 422, 638
Balance on hand	1, 557, 362

United States of America

Federal Power Commission

Before Commissioners Jerome K. Kuykendall, Chairman; Claude L. Draper, Nelson Lee Smith, Dale E. Doty and Seaborn L. Digby.

In the Matter of Treatment of Federal Income Taxes as Affected by Accelerated Amortization

Docket No. R–126

OPINION NO. 234

The Commission heretofore issued Notice of Proposed Rule Making to consider what rules, if any, should be promulgated with respect to the treatment of Federal income taxes for accounting or ratemaking purposes, or both, under either the Natural Gas Act or the Federal Power Act, or both, in view of the accelerated amortization of the cost of certain facilities permitted under section 124A of the Internal Revenue Code.

Arguments were held on March 18 and on October 16, 1953. This opinion will deal only with the ratemaking aspect of the problem, and the accounting

phase thereof will be dealt with at a later date. There are a number of natural-gas companies which have received certificates of necessity for rapid amortization which are entitled to know how this Commission will treat these certificates in making rates. For this reason, this Commission is hereby announcing its policies in this regard.

What is said herein will, of course, have equal applicability to the interstate sales for resale of electric public utilities subject to our jurisdiction, where all or a portion of the facilities which produce the energy thus sold have been constructed pursuant to such a certificate. Since these interstate sales for resale of electricity are minor in comparison to the volume of intrastate and retail sales, we recognize that the impact of our policies, enunciated herein, on electric public utilities is negligible, but that fact does not diminish or alter in any way the degree of our responsibility to the customers of the electric industry, and to the industry itself.

Nevertheless we realize that the electric public utilities are governed almost wholly in this regard by State commissions. Twenty of the twenty-one commissions which have acted have adopted positions consistent with the principles we are now enunciating.

The accelerated amortization authorized by section 124A of the Internal Revenue Code was carried in section 218 of the Revenue Act of 1950. When the Senate Committee on Finance reported the bill, it recommended the insertion of section 218 in the House bill, which did not contain a similar provision. Section 124A was said by the Senate committee to have the same basic objectives as section 124 of the code which related to the amortization of emergency facilities during World War II. The former section 124 of the code having been made applicable to certified emergency facilities constructed by utility companies, as well as others, and the new section 124A having the same jurisdictional language and the same basic objectives, the new section, of course, is applicable to electric public utilities and natural-gas companies and we have no alternative but to construe it so. In fact, no one who argued before us disputed this point.

Under the accelerated amortization provision of section 124A, any taxpayer who has received a certificate of necessity issued by the proper defense agency for the construction of an emergency facility may elect to take a deduction from gross income over a period of 60 months for the amortization of a specified percentage of the cost of such emergency facilities in lieu of equal annual deductions for exhaustion, wear and tear, and obsolescence during the estimated life of the facilities. Congress sought by this accelerated amortization provision to encourage the construction with private capital of those facilities which were deemed of sufficient value to the national defense to warrant the issuance of a certificate of necessity.

Thus, the recipient of a certificate of necessity obtains substantial deductions against net income for income tax purposes during each of the first 5 years, and much smaller deductions therefrom during the remainder of the normal amortization period. If the income tax rates remained the same during the entire life of the facilities, the same amount of taxes ultimately would be paid under either accelerated or normal amortization. By the enactment of this law, Congress did not forgive the payment of any income taxes; it merely allowed payment of some of them to be deferred. This has the precise effect of a grant by our Government to a certificate holder of an interest-free loan.

Although all parties concede that certificates of necessity issued to electric public utilities and natural-gas companies are perfectly valid and lawful, it has been strenuously argued that this Commission should nullify them by reducing the rates of such companies during the 5-year period of rapid amortization and thereby pass on to the customers of such companies the money which otherwise would inure to these companies by reason of their being permitted to defer payment of a portion of their income taxes.

The answer to this contention is that Congress obviously did not intend to make cash donations to the particular persons who happen to be, during the 5-year period of acceleration amortization, the customers of the particular utilities which have received certificates of necessity. Such a result would be inconsistent with the effort of Congress to aid our national defense.

It has been argued that some certificates were improvidently issued, and that we should for that reason prevent the holders thereof from receiving any benefit therefrom. While we have some question regarding the issuance of such certificates for property obviously having long-term usefulness, nevertheless we cannot usurp the authority or veto the acts of another agency of the Government. We accept the responsibility to abide by section 124A of the Internal Revenue Code and will, to the best of our ability, carry out the intent of Congress in our treat-

ment of certificates of necessity issued thereunder. We have not been given, and consequently cannot accept, any authority or responsibility for the issuance of any such certificates of necessity, and must recognize and accept those which have been issued by the agencies charged with that responsibility.

Another contention which has been made is that income-tax rates probably will be reduced in the future, and consequently certificate holders will receive an undue advantage by having unusually large deductions from income taxes during a period of high taxes, which will not be fully offset by the smaller subsequent deductions, if taxes are then lower. We cannot predict and should not speculate on future income tax rates. Congress undoubtedly was aware of the possibility of income taxes being reduced. Nevertheless it enacted this legislation. We have no power to enact different legislation.

Still another contention which was advanced was that the amount of temporary cash savings which would accrue during the 5-year period of accelerated amortization should be charged to the depreciation reserve and thereby deducted from the rate base of the utility on the theory that it is equivalent to customers' contributions, and therefore the utility should not be allowed to earn on these amounts.

This argument is fallacious. The particular customers of a particular utility have not made this cash temporarily available to the utility.

The customers are not called upon do do anything more or different than they are now doing. They will pay the same rates, no more, no less. They neither lend nor give their money to the utility. Their position is the same with accelerated amortization as it is without it. It is the other two parties to the transaction who change their position—the United States Government and the utility. The United States Treasury will not receive, in the 5-year period, money which it otherwise would have received, and the utility will have the money which the Treasury does not have during that period. Thereafter, the utility starts paying the money back to the Treasury. No contribution is made by the customers or by anyone else.

The proposal to charge the temporary tax savings, during the 5-year period, to the depreciation reserve is clearly a device to reach a compromise, which will allow the certificate holder to receive some but not all the benefits Congress intended. Deferred taxes are not depreciation and should not arbitrarily be labeled as such in order to prevent a certificate holder from receiving what our Government has given him.

This Commission is an agency of Congress created to perform certain legislative functions which Congress has delegated to us. We have a legal and moral obligation to abide by and execute the laws of Congress. This obligation does not permit us to substitute our judgment for that of the Congress or nullify the clear congressional intent by administrative action.

Much has been said concerning the extent of the benefits conferred by the issuance of these certificates and the advantages of the use of money without payment of interest thereon. This is wholly immaterial to the question now before the Commission. The law and the principle involved is the same whether one certificate for a small amount has been issued, or whether a thousand certificates for large amounts have been issued.

In a number of cases, the investments made by a certificate holder in reliance on his certificate has been a major fraction of his previous total investment. All the plans suggested in these hearings to deprive the certificate holder of the benefit of his certificate would in some cases very probably place the certificate holder in a position where he could not meet his current obligations to creditors or shareholders. Such an eventuality would result either in serious impairment or abandonment of service and would not be in the public interest.

It appears essential to continue the depreciation policies which we have heretofore followed: Namely, to relate the annual depreciation charge to the service life of the facility being depreciated. As applied to an emergency facility subject in whole or in part to accelerated amortization, the fact that temporary tax savings may be realized by the company through section 124A should not affect the annual charge for depreciation for ratemaking purposes.

Not infrequently, the depreciation methods allowed and recognized by a regulatory agency are not the same as those used by the utility for computing income taxes. We will recognize normal depreciation where a public utility or natural-gas company has the privilege of accelerated amortization under section 124A of the Internal Revenue Code. We will use all safeguards at our command to insure that the rate payer is protected from bearing any burden greater than normal depreciation after the period of accelerated amortization has expired It has been contended that this is a difficult task and creates an unwieldy situation. Even if this were true, it is no reason to refuse to perform the duty.

While it is clear to us that Congress, by the enactment of this law, did not intend to make gifts to the customers of the public utilities and natural gas companies which received certificates, it is equally clear that Congress did not intend to provide a temporary fund to these companies which could be diverted to the payment of dividends to their shareholders. Since the possession of necessity certificates is essentially a deferment of tax liability, the accruals for taxes in excess of those actually paid should logically be treated, not as free as unrestricted income, but earmarked to provide for the future meeting of such liability.

Consequently, we will take all steps necessary to insure that provision is made for meeting the deferred tax liability and the temporary savings produced by the deferral of taxes are not used, directly or indirectly, for the payment of dividends, but are used for the purpose intended; namely, to aid in the construction of the facilities described in the certificate which were deemed by our Government to be necessary to the national defense.

We will treat accelerated amortization in accordance with the principles stated herein, in rate cases which come to us which have that factor in them. As stated above, the accounting treatment will be dealt with later.

By the Commission. Commissioner Doty dissenting.

LEON M. FUQUAY,
Secretary.

Adopted: December 3, 1953.
Issued: December 4, 1953.

IN THE MATTER OF TREATMENT OF FEDERAL INCOME TAXES AS AFFECTED BY ACCELERATED AMORTIZATION

Docket No. R–126

Doty, Commissioner, dissenting:

I dissent from the action of my associates in their decision in the above-mentioned docket. In my opinion the decision will require rate payers to pay far more than a fair return for utility services, contrary to a long line of precedents established by this Commission which have been upheld by the courts. The decision will give utilities returns in excess of those necessary to render adequate service and to attract capital for proper expansion of facilities; it will impose unjust burdens on consumers equal to these excessive returns; it will unnecessarily complicate the regulatory process.

THE PROBLEM

Congress, during World War II and the present cold war period, authorized special income-tax deductions with respect to emergency facilities. The present law, section 124A of the Internal Revenue Code (Revenue Act of 1950), is patterned after former section 124 (Revenue Act of 1940)—so much so that we must look to the latter for the legislative history of the former.

Under the law, specified agencies of the Federal Government are empowered to issue certificates of necessity authorizing the cost, or a certain proportion of the cost,[1] of emergency facilities to be taken as an income tax deduction over a period of 60 months, even though such facilities have a much longer service life when acquired for normal peacetime pursuits.

It is evident that many of the utility facilities certificated will have a life in service considerably beyond the 60 months' amortization period. For example, some facilities licensed by this Commission and for which accelerated amortization certificates have been issued will probably give service in the neighborhood of 100 years. By accelerating the depreciation deduction consequential savings in taxes will be realized in the amortization period.

After the amortization period has ended, the accelerated depreciation deduction will cease for tax purposes. Inasmuch as under the tax laws only 100 percent of the cost of depreciable property may untimately be recovered as depreciation expense, it is likely that annual depreciation expense subsequent to the amortization period, will be less than that normally allowable because of the previous acceleration as to part of the cost.

The conflict between accelerated depreciation and normal depreciation, with attendant tax savings in the amortization period, has created a very serious regulatory problem. The majority of the Commission seek to solve this problem

[1] It appears that about 45 percent of total cost of emergency facilities of gas and electric companies has been certified for allowance as accelerated depreciation.

by permitting the recovery from rate payers in the amortization period of amounts which would have been payable as income taxes had the special accelerated depreciation deduction not been allowed. In other words, they would not, in fixing rates, give effect to the tax savings during this period, but rather, would treat such tax savings as tax expense, with offsetting credits to some kind of a special reserve. In the postamortization period they probably would not allow the actual income taxes payable on the business for each year, but instead would allow only the actual taxes reduced by a credit resulting from the allowance of more than actual taxes in the prior amortization period.

The amounts which the utility will thus collect under the guise of taxes payable to the Government over some 25 to 100 years after the close of the amortization period will be available to the utility for its ordinary capital needs. The amount recouped as taxes will be substantially in excess of the actual taxes payable for a long period in the future and the excess could be used to pay off pro tanto securities issued to finance the emergency facilities or to purchase other facilities, the cost of which would then be included in the rate base. Unfortunately, under the decision of the majority in this case, the consumers will not in any manner whatsoever receive any credit for these large payments which, as noted above, can readily be used for capital purposes.

The majority base their conclusions on what they believe to be the intention of Congress. In my opinion they have seriously misinterpreted that intention.

The general intention of Congress, as I will later show, was to allow rapid recovery of the investment or part thereof in facilities which have a doubtful economic life at the end of the emergency period. The intention of Congress, therefore, may best be carried out if we recognized accelerated depreciation in the fixing of rates. This would permit, at least in part, the rapid recovery of the investment.[3]

It is well established that when utility customers pay for the cost of plant, which they do through the depreciation allowance, they are given credit for such payments through the deduction of the resulting depreciation reserve in the computation of the rate base. The Federal Power Commission was successful in having the Supreme Court of the United States approve this principle in the Hope case.[3]

As to the amount of accelerated depreciation to be allowed in rate cases, at the present time I would allow an amount equal to the tax savings in the amortization period which is all that is claimed as additional expense at this time. I would not close my eyes, however, to claims for larger amounts upon a proper presentation as to probable economic loss during the amortization period.

LEGISLATIVE HISTORY

The legislative history of section 124A of the Internal Revenue Code is meager; we must look to its predecessor, section 124 (2d Revenue Act of 1940) to ascertain its purposes. The then Assistant Secretary of the Treasury, Mr. John L. Sullivan, testified in support of the original measure as follows:

"The agencies of the Government charged with the duty of letting contracts for national-defense orders have brought to the attention of the Treasury an aspect of the present income-tax law on which they have requested revision. I refer to the provisions for depreciation * * *. Under the existing law the taxpayer is permitted to spread the cost of his depreciable assets over their expected life * * * [However] * * * in those cases in which the plant and equipment will have little or no use after the completion of the defense program, the rate of depreciation must be increased if the manufacturer is to have the opportunity of charging the cost against income during the period of emergency. Such accelerated depreciation or amortization cannot be allowed under existing law. The advisory Commission to the Council on National Defense, and the War and Navy Departments, have informed the Treasury Department that the inability of manufacturers to secure special amortization allowance is impeding the letting of defense contracts. Because of this situation the Treasury recommended to the subcommittee that provision be made by law for special amortization of the cost of new plant and equipment necessary to the defense program over a period of 5 years * * *." [4]

[3] This would also avoid the sudden changes in rates consistent with the aims of those who advocate "normalizing" income taxes. During the amortization period depreciation expense would be increased whereas taxes would decrease. In the postamortization period income taxes would presumably increase whereas depreciation expense would decrease because of cessation of accelerated depreciation.

[3] *Federal Power Commission* v. *Hope Natural Gas Company*, 320 U. S. 591.

[4] Joint hearings, Committee on Ways and Means, House of Representatives, and Senate Committee on Finance, 76th Cong., 3d sess.

The position of the industry as was well explained by the Boston Chamber of Commerce:

"It is therefore universally recognized that there must be some means provided by which the cost of the expansion of plants for defense purposes may be deducted from gross income for tax purposes if the facilities thus provided cease to be useful when the present emergency passes. The best method is to allow a deduction from gross income similar to the deduction now allowed for depreciation, obsolescence, or destruction by flood, fire, or other calamity of capital assets. under the heading of amortization of defense facilities." [5]

Thus it was recognized that defense facilities might cease to have usefulness or at least experience diminished usefulness at the end of the emergency period, hence it was necessary, in order to attract capital, to permit the rapid recovery of the investment, or a substantial part thereof, during such emergency period.

This is made abundantly clear by the Committee on Expenditures in the Executive Departments in a report to Congress in 1951:

"When it is said that certificates of necessity were intended as an 'incentive' to private capital to build defense plants, all that properly means is that private enterprise would naturally be reluctant to invest in a war or emergency facility unless assured by a certificate of necessity that cognizance will be accorded by the Government to the probability that the facility will have a comparatively short economic life." [6]

And—

"This subcommittee believes the major factors controlling the percentage of the certificate should be the proper economic usefulness of the facility for other than defense purposes after 5 years * * *." [7]

The testimony or officials charged with the responsibility of issuing certificates of necessity shows that they considered accelerated depreciation allowances as their best estimates of the economic depreciation which would likely occur during the emergency period:

"I should say that it is largely the control; namely, what is in our best judgment our estimate of the profitable usefulness of the facility after the emergency period. I do appreciate that it is impossible to do that with mathematical precision." [8]

* * * * * * *

"Mr. CASEY. Is it not true that certificates of necessity were originally designed to cover the economic depreciation of the facility during the 5-year period as distinguished from physical depreciation?

"Mr. CREEDON. I believe that is correct; yes, sir." [9]

* * * * * * *

"Mr. CASEY. In other words, under the practice and procedure at present where a percentage is fixed in the amount of 85 percent for a steel company, that logically should represent a determination in advance and as correctly as possible under the circumstances that the facility will be 85 percent depreciated economically at the end of the 5-year period?

"Mr. KIRBY. Yes; that is right." [10]

Therefore, the basic purpose of accelerated depreciation is to permit the rapid recovery, in whole or in part, of investments which might be in jeopardy (and, therefore, unattractive to investors) under normal depreciation practices.

I accept without qualification the purpose of section 124A as shown by the legislative history. I accept, of course, the action of the appropriate defense agency officials in issuing certificates of necessity to companies subject to this Commission's jurisdiction. I agree with my associates that it is not for this Commission to inquire into the reasonableness of their action. Our job, as far as is pertinent here, is the regulation of public utility rates—we take over in this matter where the defense agencies leave off.

TREATMENT OF ACCELERATED DEPRECIATION IN RATE CASES

In the treatment of accelerated depreciation for ratemaking purposes, we start with the knowledge that duly constituted agencies of the Federal Government

[5] Joint hearings, supra, p. 477.
[6] H. Rept. 504, 82d Cong., 1st sess., p. 17.
[7] House report, supra, p. 3.
[8] Hearings into the Policies, Procedures, and Program Involving Granting of Certificates of Necessity and Loans, 82d Cong., 1st sess., p. 301, testimony of Frank H. Creedon, Assistant Administrator, Facilities Construction Bureau, National Production Authority.
[9] Supra, pp. 301–302. Mr. Casey was counsel for the subcommittee.
[10] Supra, p. 341, Vance N. Kirby, tax legislative counsel, Treasury Department.

have found that certain facilities are so closely identified with the national emergency as to require special depreciation allowances. I would, therefore, allow accelerated depreciation (in the amount of tax savings) in the computation of rates as well as for the purpose of accounting.

My associates apparently would not allow additional depreciation expense but instead would adjust the actual income-tax expense upward by the amount of the tax savings due to the allowance of accelerated depreciation for income-tax purposes. In the postamortization period, I presume income taxes would be adjusted downward. In other words, they reverse the process; they deny accelerated depreciation and proclaim accelerated taxes.

This procedure is erroneous, in my opinion, in at least four respects: (1) it does not conform to congressional intent, i. e., the allowance of accelerated depreciation; (2) it results in overstatement of income taxes for 5 years and understatement of such taxes for many years thereafter; (3) it is unwieldy; and (4) it fails completely to compensate the rate payer for his contribution to the capital of the utility.

I have already discussed (1) above. As to the second point, the allowance of more income taxes than are legally due on the income for the 60-month period—more taxes than are lawfully accessible—is not sound. This Commission has held on several occasions that is will allow only actual taxes in the computation of rates and the present decision is, therefore, a departure from well-reasoned precedent.[11]

True, my associates imply that they will offset the allowance of more than actual taxes during the 5-year amortization period by the allowance of less than actual taxes during the postemergency period. Of course, this proposal involves a great deal of speculation. Questions of future tax structure and tax rates affect the equities of the proposition. Moreover, the allowance of less than actual taxes, even though to offset excessive allowances in previous years, is a poor regulatory device. A large element of confusion is unnecessarily introduced into regulation by this approach including, among other things, the question of law as to the authority to require a utility to charge rates which will not allow full recovery of actual taxes.

The method sanctioned by my associates is unwieldly at best. If the tax credits are to be made over the remaining life of the property, then tax adjustments in the case of some hydroelectric projects will be made for 100 years. Of course, the adjustments will never be made for this long period—the proposal will be abandoned because of its impracticality long before the end of the service life of the property. On the other hand, if a rough period of, say, 25 to 30 years is taken as the period during which tax credits must be imposed, this is an arbitrary determination resting solely on expediency, which likewise is a poor regulatory standard. This latter procedure departs from the "deferred tax" theory and is plain recognition of the impracticalities of that theory.

The annual upward adjustment of income taxes during the accelerated depreciation period will be large and the annual credits during the much longer succeeding period will be much smaller. The net effect of this will likely be that consumers will stand the large bookkeeping increases in expense with little chance of getting any of the benefit from the small bookkeeping reductions thereafter.

More important, however, is that the method proposed by my associates fails to give the rate payers any credit for their payment of hundreds of millions of dollars many years in advance of the time when such amounts are theoretically due as taxes. Thus under their method rate payers in 1954 will be charged for amounts earmarked as income taxes due as late as 1984 or 2004. Even if such amounts were actually prepayments of taxes, the rate payer should be compensated for the use of this money by the utility for such a long period of time.

The method I advocate automatically eliminates any such inequities as the foregoing. The same dollars would be collected from rate payers initially, but the extra amounts would be treated as additional depreciation expense in accordance with the underlying theory of accelerated depreciation. These dollars could be used to pay off the capital invested in the facilities or invested in new facilities. As the amounts are collected from the rate payer, the investment on which the rate payer pays a return would be correspondingly reduced. It has been the standard practice of this Commission almost since the inception of its rate regulatory authority to reduce the investment base by the depreciation allowance. Thus the Commission said in the Safe Harbor Water Power Corporation case:

[11] *United Fuel Gas Company* case, Docket Nos. G–1781, G–2055, Opinion No. 258–A, issued Nov. 19, 1953; *Transcontinental Gas Pipe Line Corp.*, Docket No. G–1842, Opinion No. 227, issued May 29, 1952.

"There is no principle or concept of regulation, either in law or in fact, requiring consumers to pay in perpetuity a return on the total capital initially embarked in the enterprise when such capital is periodically returned through depreciation charges and in the absence of reinvestment of such capital in the utility's operative property. Such return of capital terminates the consumers' obligation."[12]

The decision of the Commission in that case was upheld by the United States Court of Appeals for the Third Circuit [13] and certiorari was denied by the Supreme Court of the United States.[14]

It is interesting to note that since the decision of the Supreme Court in the Hope case, most regulatory commissions deduct the depreciation reserve or its equivalent in the computation of the rate base.[15]

The recognition of accelerated depreciation would accomplish the purpose of section 124A of the Internal Revenue Code in that it would permit the rapid recovery, at least in part, of capital invested in emergency facilities. This may be shown by the illustration below in which the following assumptions have been made:

(*a*) Gross investment $1 million of which 60 percent has been approved as subject to accelerated depreciation;

(*b*) Normal service life, 40 years;

(*c*) Rate of return, 6 percent.

	Net investment at end of 5 years	
	Normal depreciation	Accelerated depreciation
Gross investment	$1,000,000	$1,000,000
Depreciation at 2½ percent for 5 years	(125,000)	(125,000)
Acceleration of depreciation (tax savings associated with $600,000 at 52 percent tax rate)		(273,000)
Net investment	875,000	602,000

Thus the foregoing illustration shows that under the method I propose the utility would get back $398,000 as depreciation expense in the amortization period. This would permit the utility to pay off that amount of securities and to reduce its capital obligation to $602,000 at the end of that time. Obviously it would then need a fair return on only $602,000 to be saved whole and any larger allowance would constitute an additional benefit to the company.

Under the rule announced by the majority the rate payer would pay the same $398,000 but only $125,000 would be classified as depreciation, the balance of $273,000 being classified in some special reserve. This latter amount could be used to reduce capital obligations or to finance expansions just as the higher allowance for depreciation could be used. However, the majority would give the rate payers no credit for this advancement of capital.

When we remember that certificates of necessity have been issued to electric and gas utilities providing for accelerated amortization of some $2 billion,[16] the extent of the benefit may be imagined. Suffice it to say that on the basis of a 6-percent return and an average life of 40 years, the additional income to the utility in excess of a fair return over the life of the property would amount to about $491,000 for every million dollars of investment subject to accelerated depreciation.

The legislative history shows that it was the intention not to create such a benefit through enaction of section 124A. There is not a shred of evidence to the effect that utilities were to receive more than a fair return by the operation of that section.

It has been stated that the income-tax saving in the amortization period is in effect an interest-free loan from the Government. I do not so construe it. The actual dollars come from customers. The amount has none of the characteristics of a loan—due date, amount certain, etc. The collection of additional taxes commensurate with the savings is somewhat speculative, depending upon tax

[12] 5 FPC 221, 254.
[13] 179 F. 2d 179.
[14] 339 U. S. 957.
[15] State Commission Jurisdiction and Regulation of Electric and Gas Utilities, 1948, Federal Power Commission, p. 8.
[16] Only a small part of this total is involved in rates subject to this Commission's jurisdiction.

rates and tax structures many years in the future. The Government in the past has made many loans to assist defense industries but the instant amounts are not in this category.

Upon a decision [17] of the Supreme Court of Pennsylvania, prepayments of income taxes for 1 year are considered advances of working capital. The court held it was arbitrary and unreasonable not to deduct the amounts thereof in computing the working capital element of the rate base. This principle of law would seem to require the deduction from the plant element of the rate base, the larger "prepayments" required by my associates in this proceeding.

To me, the problem would best be handled by the allowance of accelerated depreciation expense and the deduction of the resulting depreciation reserve from the rate base in the fixing of just and reasonable rates. This allowance, in my opinion, would conform to the principle of the Internal Revenue Code; it would permit rapid recovery of investment in defense facilities; it would treat rate payers and the utilities fairly; and it would avoid the messy accounting which, I am sure, will ultimately be abandoned in the plan approved by the majority of this Commission.

It has been said that the charging of tax savings as additional depreciation expenses would interfere with the orderly calculation of depreciation. I do not agree with this view. First of all, to the extent that the defense facilities have a shorter than normal economic life, this fact must be allowed for. Secondly, we know that the depreciation expense at best is an estimate. We know that the reserves on the books frequently do not match the theoretically proper reserves. We know, too, that only the full cost of depreciable property should be recovered as depreciation expense. Studies from time to time are necessary to accomplish this end. Changes in rates from time to time are necessary under any depreciation method. Studies of the remaining service life where accelerated depreciation is allowed must be made for income-tax purposes. Little or no additional studies would be necessary for the purposes of regulation.

Finally, the method of spreading the net investment in plant at any given time over the remaining life is an approved procedure where sound depreciation practices have been observed. This Commission has been using this method with respect to depletion allowances for a great many years. The committee on depreciation of the National Association of Railroad and Utilities Commissioners fully supports this application of the straight-line method. In that committee's report for 1950 it says:

"The aim of depreciation accounting is to spread the cost of plant, less net salvage to be realized on retirement, as equitably as is practicable over the service life of the plant. The aim is difficult of precise achievement because the factors upon which depreciatiation charges are based will not be definitely known until the plant has been retired. During the time plant is in service, its average service life, the salvage expected to be realized, and the cost or removal expected to be incurred are necessarily estimates. These estimates are subject to change from time to time as more comprehensive information regarding past experience and probable future conditions become available. Nevertheless, it is not likely that the exact amount of depreciation expense charges required will have been provided unless a procedure is established for reconciliation of the estimates of depreciation accruals with the actualities which developed as the years pass by.

"Such reconciliation can be made by application of the remaining life basis of depreciation accounting. Under this procedure, the cost of plant, less net salvage, and less depreciation already provided for, is spread over the remaining service life of the plant. In other words, the undepreciated cost is to be provided during the remaining period of service of the plant. As plant becomes older, estimates of its total service life and remaining service life become more accurate, and final net salvage may be estimated more closely. Thus, the remaining life basis for all practical purposes assures that the actual cost of depreciation will be charge during the life of plant." [18]

For the reasons stated I dissent from the action of the majority in this proceeding.

DALE E. DOTY, *Commissioner.*

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[17] *Pittsburgh* v. *Pennsylvania Public Utilities Commission*, 88 A.2d 59.
[18] Proceedings of the 62d Annual Convention of the National Association of Railroad and Utilities Commissioners, report of the Committee on Depreciation, p. 242.

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